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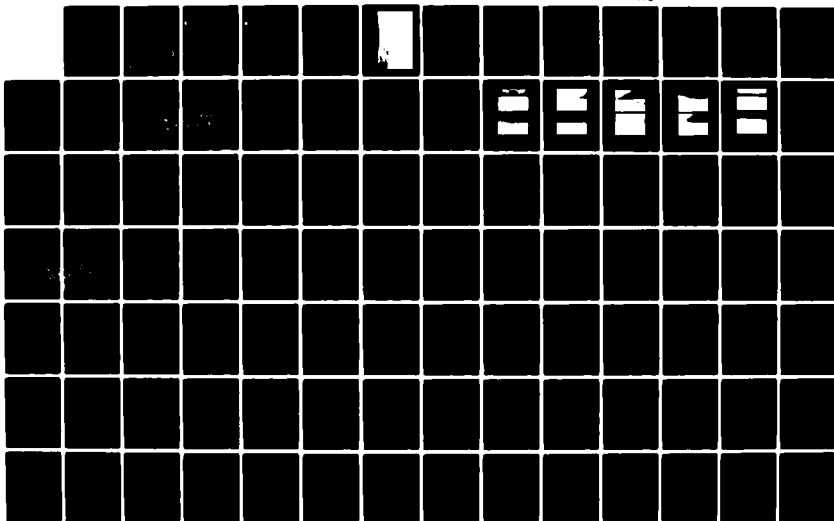
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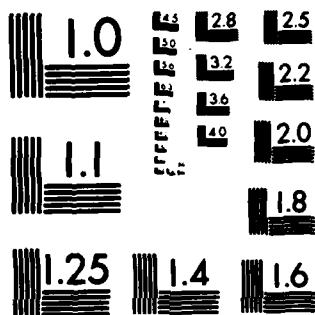
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**A CULTURAL RESOURCES INVENTORY
OF EASTERN PORTIONS OF
LAKE SAKAKAWEA, NORTH DAKOTA
(MERCER AND MCLEAN COUNTIES)**

Prepared by:

**Science Applications, Inc.
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Submitted to:

**U.S. Army Corps of Engineers
6014 U.S. Post Office and Courthouse
Omaha, Nebraska 68102**

Contract DACWAS-81-C-0220

Submitted by:

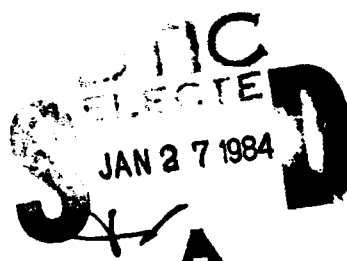
**Science Applications, Inc.
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September 15, 1982

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September 15, 1982





LAKE SAKAKAWA (LOOKING EAST TOWARDS GARRISON DAM)

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SECTION 1.0

ABSTRACT

A cultural resources inventory of selected portions of the eastern part of Lake Sakakawea (Mercer and McLean Counties), North Dakota, identified 56 sites. The site types include: stone circles (36), stone cairn (1), linear stone arrangement (1), cultural material scatters (14), bone scatter (1), eagle trapping pit (1), linear earthen mound (1), and historic farmstead (1). The linear earthen mound is significant in terms of the criteria (especially 36CFR60.6d) for nomination to the National Register of Historic Places (NRHP), and any impact to the area should be avoided. Six of the sites are potentially significant for nomination to the NRHP. These include the eagle trapping pit, the extensive stone circle and linear stone features on Nishu Peninsula, and four of the cultural material scatters. The significance of the remaining sites cannot be determined using the data collected during the inventory. With the exception of the linear mounds, additional fieldwork to determine significance status, as well as an impact analysis for the area, is recommended for the identified sites. The Nishu Public Use Area is significant in terms of the criteria (especially 36CFR60.6d) for nomination to the NRHP, and any impact to the area should be avoided.

SECTION 2.0

INTRODUCTION

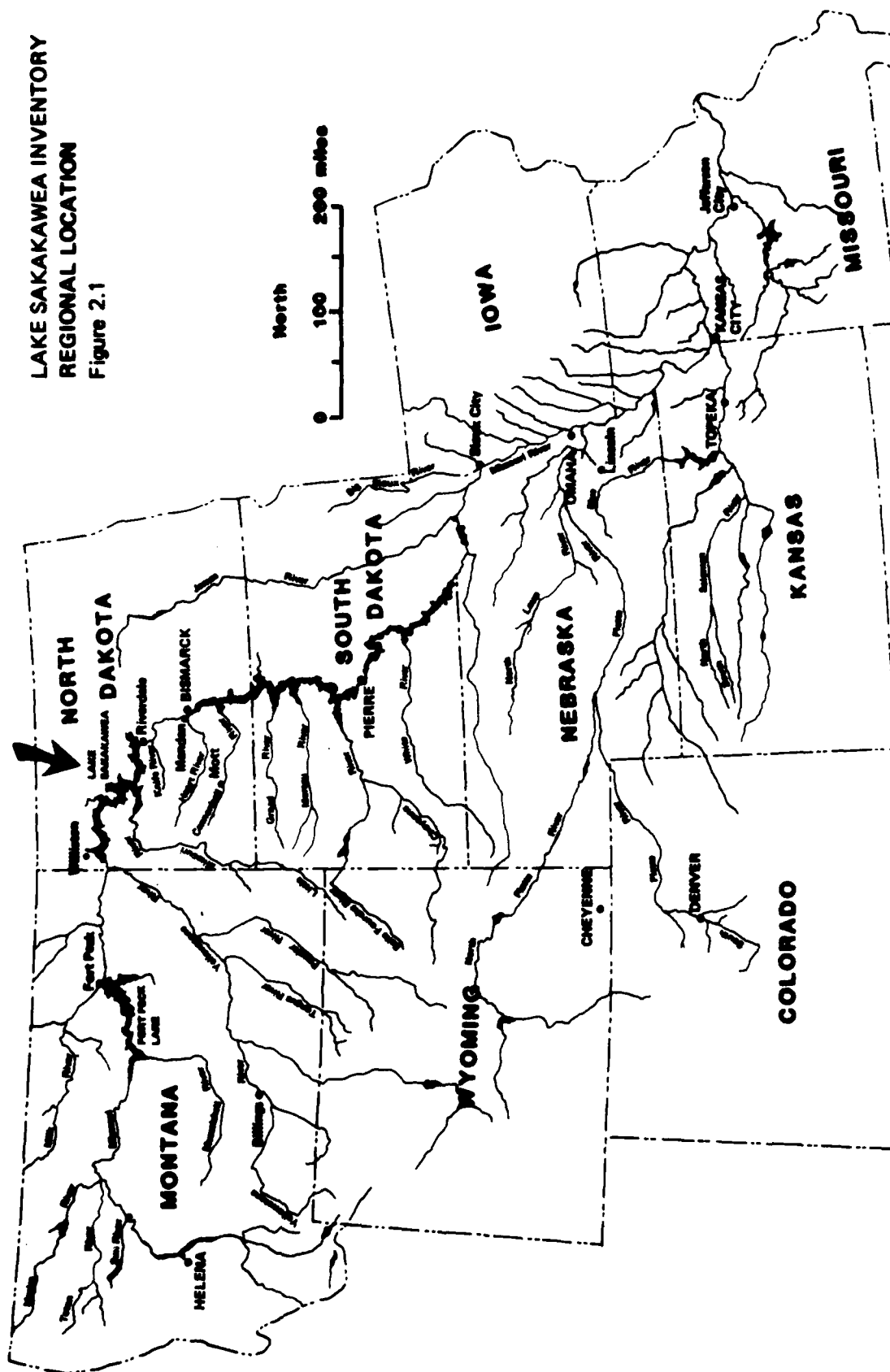
This report details the cultural resources inventory conducted by Science Applications, Inc. (SAI) for the U.S. Army Corps of Engineers (Omaha District) (COE) of selected areas of the eastern part of Lake Sakakawea. Lake Sakakawea is located in northwest central North Dakota on the Missouri River (Figure 2.1). Ten areas were inventoried and all are currently designated as public use areas. The inventory areas are located in both Mercer and McLean Counties. The areas (Figure 2.2) and the acreage covered are listed below:

1. Nishu Public Use Area	1,800 acres
2. Douglas Creek Public Use Area	310 acres
3. National Guard Recreation Area	910 acres
4. Garrison Bay	550 acres
5. Fort Stevenson Public Use Area	610 acres
6. Totten Trail Park	280 acres
7. Lake Sakakawea State Park	640 acres
8. Beulah Bay Public Use Area	310 acres
9. Hazen Bay	750 acres
10. Beaver Creek Bay	1,230 acres

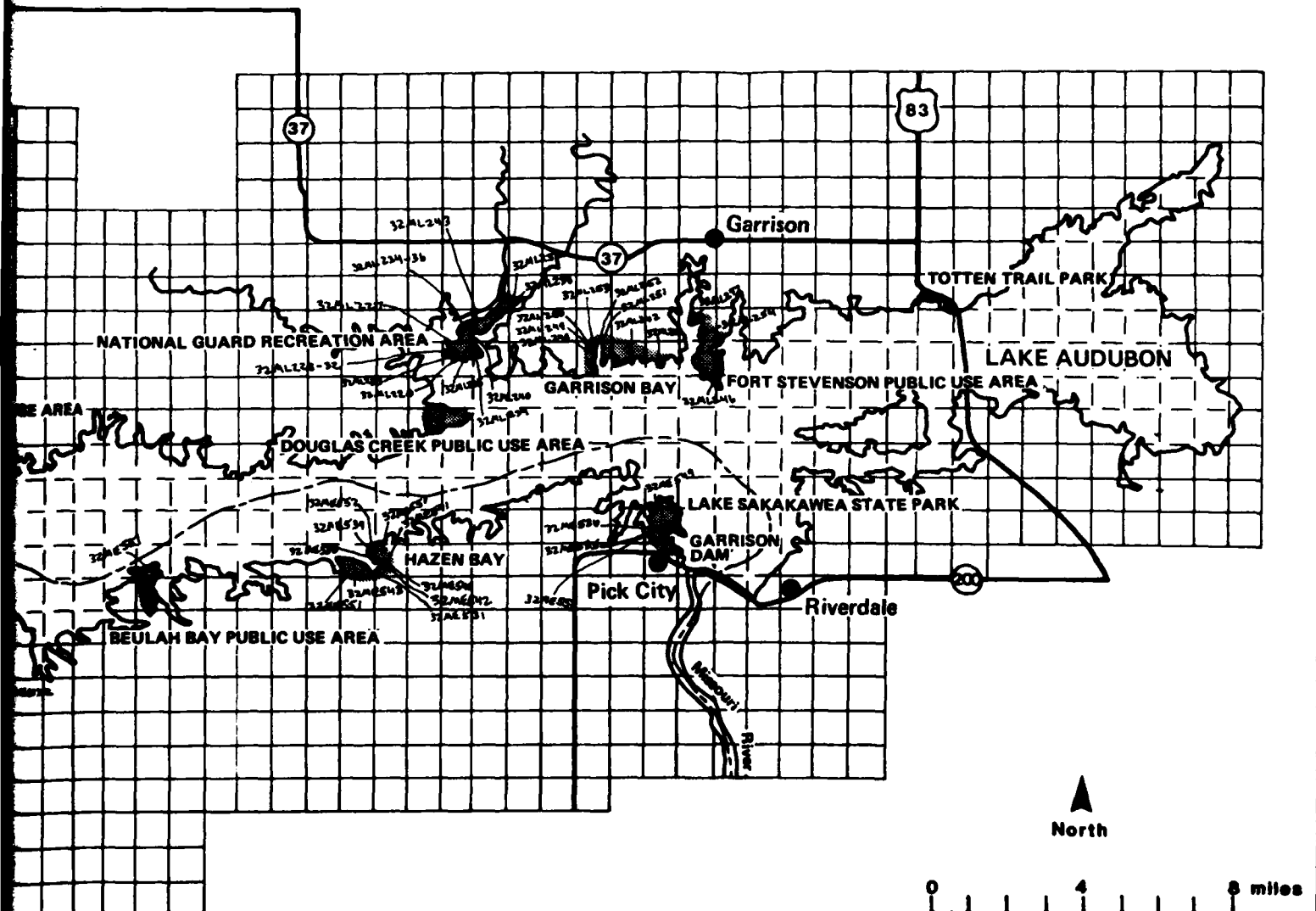
The field inventory was completed by SAI from 4 August - 11 September 1981.

The goals of the project were twofold and focused on identification and management documentation of the cultural resources. To this end, the land surface was covered by pedestrian survey using two crews with personnel spaced from 15 to 30 m apart. North Dakota Cultural Resource Survey site forms were completed and photographs taken for each resource identified. Limited testing was undertaken at certain of the resources to establish the presence and depth of buried cultural materials. The impact to each resource was identified and evaluated, and management recommendations were formulated. The field personnel included Jeff Campbell, Rick Hurt, Beverly Leichtman, LeAnn McClain, Judith Southward, Dale Wedel, and

LAKE SAKAKAWEA INVENTORY
REGIONAL LOCATION
Figure 2.1



LAKE SAKAKAWEA INVENTORY
 LAKE SAKAKAWEA INVENTORY AREAS
 Figure 2.2



Carl Winton. Paul Friedman was Project Historian. Contributions to the report include: Rick Hurt for the Regional Location and Environment (Section 3.0), Paul Friedman for the Evaluation and Discussion of Previous Work (Section 4.0) and for the description of the historic farmstead, Dennis Dahms for the analysis and discussion of the recovered bone (Section 6.2.3), and Gary Moore for the overview comments on stone circle sites (in Section 6.3). Judith Southward compiled most portions of the remaining sections of the report. Esther Goodyear did the word processing for the project; Marina Ossipov undertook the graphics. Dr. Asha Kalia served as Editor of the final report.

The work completed during the inventory was undertaken, a literature search of previously recorded sites was completed at the North Dakota State Historical Society in Bismarck, North Dakota.

The work completed during the inventory was done in accordance with the following Federal laws and regulations: Antiquities Act of 1906, Historic Sites Act of 1935, National Historic Preservation Act of 1966, National Environmental Policy Act of 1969, Executive Order 11593 (1971), Archeological and Historic Preservation Act of 1974, 36CFR800, Federal Land Policy and Management of 1976, and Archeological Resources Protection Act of 1979. Further, the inventory was completed in accordance with preservation and interpretation guidelines set forth on a state level. In particular, these include North Dakota Century Codes 55-02-03, 55-02-07, 55-02-07.1, 55-03-01, 55-10-01, and 55-10-09.

The following sections of the report detail the literature search and the prehistoric and historic overviews, discuss the project goals and methodology, describe and evaluate the inventory data, discuss site significance, and present management recommendations.

SECTION 3.0

REGIONAL LOCATION AND ENVIRONMENT

3.1 PROJECT SETTING

Lake Sakakawea is in the west-central part of North Dakota and was formed as a result of a U.S. Army Corps of Engineers dam placed on the Missouri River. The survey area has a dry-subhumid, continental climate characterized by long cold winters and short warm summers. Physiographically the area consists of recent glacial landforms, loess deposits, areas of residual plains, and recent alluvial bottomlands (Brockman et al. 1979).

3.2 PHYSIOGRAPHY

The Missouri Valley is a product of the Pleistocene glaciations. A continental divide ran from northeastern to southwestern South Dakota, which crossed the present Missouri Valley between the Cheyenne and the Bad Rivers (Lehmer 1971). With the advance of the Pleistocene glaciers, both the northern and southern drainage systems were blocked. This resulted in the development of a large glacier margin river which persists today as the middle reaches of the Missouri (Ibid). The glaciers reached their maximum southern extent along the Missouri River. This in turn blocked the easterly flowing streams. When the glaciers retreated, they failed to uncover the east-draining valleys until after the temporary trenches had become so deep that the diverted water was unable to return to former routes (Flint 1957:169).

3.3 CLIMATE

The climate of the survey area is typically semiarid and continental, with short warm summers and long cold winters. Polar air masses dictate the winter climate and warm, moist air from the Gulf of Mexico regulates the summer temperatures. The growing season averages 125 frost-free days which occur between late May and mid-September. Temperatures average 7.2°F in January to 70.2°F in July with a mean annual temperature of 40°-41°F. Annual precipitation averages 16-17 inches, mostly in the form

of sudden violent thunderstorms. Approximately 80% of the precipitation falls from April through September. In winter, about a quarter of the annual precipitation falls as snow. (The above information is abstracted from Brockman et al. 1979.)

3.4 FLORA AND FAUNA

Native plant and animal communities are becoming increasingly more important to archeologists in understanding the environmental context of a site and interpreting site function. The Middle Missouri area offered great diversity in floral and faunal resources. The vegetational cover can be briefly described using Lehmer's (1971) model of four physiographic zones for the Middle Missouri area. These zones run generally parallel to the course of the Missouri River.

The first zone is the Missouri Plateau which runs along both sides of the river trench. This area is characterized by prairie grasses consisting of blue grama (Bouteloua gracilis), plains muhly, (Muhlenbergia cuspidata), side-oats grama (Bouteloua curtipendula), little bluestem (Andropogon scoparius), and threadleaf sedge (Carvex filifolia). The breaks at the edges of the trench are grasslands with stands of small trees and brush (i.e., ash [Fraxinus pennsylvanica], aspen [Populus tremuloides], elm [Ulmus americana], oak [Quercus turbinella], and box elder [Acer Negundo]). These trees and shrubs thrive in the sheltered drainages or coulees. The undergrowth consists of buckbrush (Symphoricarpos albus), buffaloberry (Shepherdia argenta), chokecherry (Prunus virginiana), rose (Rosa arkansana), plum (Prunus americana), and juneberry (Amerlanchier utahensis). Below the breaks the terraces are covered with a mid to tall grass, primarily western wheatgrass (Agropyron smithii), big bluestem (Andropogon gerardi), needle-and-thread (Stipa comata), and green needle grass (Stipa viridula). The final area is the rich floodplain which consists of tall grasses and a heavy growth of trees mainly dense stands of cottonwoods (Populus sp.) and juniper (Juniperus sp.).

These vegetation zones supplied a variety of potential resources for the aboriginal population. The grasslands provide excellent hunting of

game and foraging for grass seeds. Game also spilled over into the breaks and terraces. The floodplain provides material for shelter and fuel and in later times excellent soil for agricultural practices.

The enormous quantity of faunal remains found in village sites suggest an abundance and variety of the native fauna. Bison herds, which once occupied the region, played an important role. Since bison bone often comprises 90% of all identifiable bone found in excavated village sites, their importance can hardly be overemphasized (Lehmer 1971). In addition to the bison (Bison bison), deer (Odocoileus hemionus), antelope (Antilocapra americana), elk (Cervus elephus), and dog (Canis familiaris) were important to the native populations. Other mammals which inhabit the area include cottontail rabbit (Sylvilagus spp.), red fox (Vulpes vulpes), jackrabbit (Lepus spp.), mink (Mustela vison), muskrat (Ondatra zibethicus), and raccoon (Procyon lotor). Mammals, such as the elk and bear (Ursus americanus) at one time inhabited the area.

The most common fish are northern pike (Esox lucius), walleye (Stizostedion vitreum), trout (Salmo spp., Salvelinus fontinalis), catfish (Ictalurus spp., Noturus flavus), bass (Micropterus spp.), blue gill (Lepomis spp.), and perch (Perca flavescens).

3.5 PRESENT LAND USE AND FIELD CONDITIONS

All of the 10 areas that were inventoried have been designated as public use areas. These areas have recently received or are currently receiving recreational and agricultural activity impacts (Figures 3.1-3.5). The areas most affected are Fort Stevenson and Lake Sakakawea State Parks. The areas least impacted are the National Guard and Nishu Public Use Areas. Most of the land areas at Fort Stevenson and Lake Sakakawea are covered with roads, tree breaks, picnic and camping facilities, interpretive displays, etc. For the most part, the use of the land is surficial (i.e., camping stalls, road surfaces) but in some cases, such as plowing and planting for tree breaks, the disturbance is subsurface. In these areas, as well as many others, gravels have been hauled in to surface the roads. Often lithic materials such as Knife River Flint, which



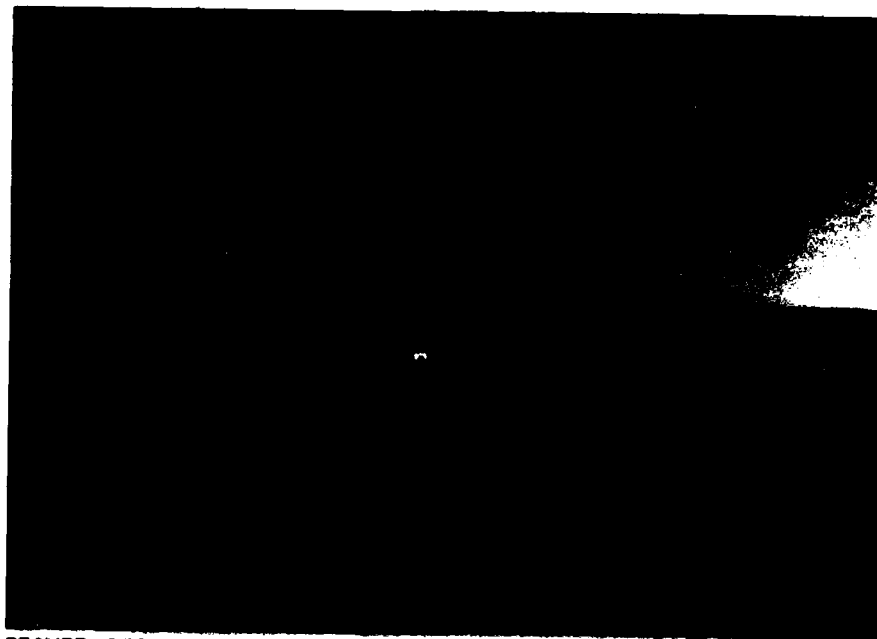
DOUGLAS CREEK PUBLIC USE AREA (West)



FORT STEVENSON PUBLIC USE AREA (North)

**LAKE SAKAKAWEA INVENTORY
PROJECT AREAS**
Figure 3.1





BEAVER CREEK BAY (East)



BEULAH BAY PUBLIC USE AREA (East)

**LAKE SAKAKAWEA INVENTORY
PROJECT AREAS**
Figure 3.2





GARRISON BAY (Northeast)



HAZEN BAY (North)

**LAKE SAKAKAWEA INVENTORY
PROJECT AREAS**
Figure 3.3

AI



LAKE SAKAKAWEA STATE PARK (North)



NATIONAL GUARD RECREATION AREA (Northeast)

**LAKE SAKAKAWEA INVENTORY
PROJECT AREAS**
Figure 3.4

SI



NISHU PUBLIC USE AREA (East)



TOTTEN TRAIL PARK (North)

**LAKE SAKAKAWEA INVENTORY
PROJECT AREAS**
Figure 3.5



is known to have been culturally manipulated, are present in these gravels. Other portions of areas (such as Fort Stevenson) have lease areas set aside for residential homes.

The National Guard and Nishu Public Use Areas currently have low recreational and agricultural activities. At the National Guard area, the only roads are two-rut tracks, and there are no formalized (paved) picnic areas. The National Guard has impacted some areas. Grazing is not currently an activity. Nishu Peninsula is even more isolated and less impacted since the only land access is by a two-rut, four-wheel-drive road. Currently, there is no cattle grazing although the presence of a corral suggests such activity in the past.

The remaining areas exhibit varying degrees of impact between these two extremes. Douglas Creek and Totten Trail have formalized picnic and camping areas, as well as several fields of waist-high sunflowers. One whole peninsula in the Garrison Dam area is reserved for residential homes and, on other portions, the native grasses are being harvested. At Beulah, Hazen, and Beaver Creek Bays, there are boat ramps and picnic areas. Many of the areas at Hazen and Beaver Creek Bays do, however, have restricted public use areas.

All of the impacts affect in varying degrees the visibility of the ground and, therefore, the cultural resources. Where formalized picnic and camping areas are present, ground visibility is often excellent (except in paved areas), but the resource is often highly disturbed. Ground visibility is also high when the grasses have been either harvested or grazed. Disturbance of the sites in this situation varies from area to area. Ground visibility is poorest (i.e., 0-30%) in those areas where native grasses grow and remain untouched. The sites, as a whole, appear to be reasonably undisturbed. Buried cultural materials are only visible in roadbeds, gopher hole backdirt, and plowed tree breaks. The fact that these sites are buried may help to protect their integrity.

SECTION 4.0

EVALUATION AND DISCUSSION OF PREVIOUS WORK

The following section will detail the results of the literature search, discuss the development of a cultural chronology for the region in terms of previous investigations, and present an overview for both the prehistory and history of the region.

4.1 RESULTS OF THE LITERATURE SEARCH

The literature search for the Lake Sakakawea Project was conducted in two stages. In the first stage, a careful reading of the literature identified those sources which pertained to the prehistory and history of the project area. In the second stage, a site files search was completed at the State Historical Society of North Dakota, which located various survey reports and previously recorded archeological sites in the vicinity of the Lake Sakakawea Project Areas. The files and data at the University of North Dakota at Grand Forks, the North Dakota State University at Fargo, the National Archives, the Smithsonian Institution, and the Midwest Archeological Center of the Park Service were not utilized because of lack of finances and time. Much of the information at these offices is also to be found at the State Historical Society of North Dakota. In addition to the site files search, several professional archeologists working in the area were questioned regarding culture chronologies, site functions, and artifact typologies.

4.1.1 Secondary Literature

Since the earliest historic descriptions, the term "Upper Missouri" has been applied to the Missouri River Valley above the Platte River. Archeologists, on the other hand, have developed their own taxonomy for geographic and cultural divisions, and they refer to this region as the "Middle Missouri." Regardless of which term is applied, the Missouri River Valley in the vicinity of Garrison Dam and Lake Sakakawea has attracted the attention of historians and archeologists alike. This is because the Missouri River was the setting of some of this nation's most

exciting and best documented frontier experiences and because of the archeological investigations carried out by the River Basin Surveys during the 1940s and 1950s. In terms of this country's historic heritage, the Missouri River served as one of the most important transportation arteries to the American West. Here early explorers, traders, travelers, soldiers, and settlers first had contact with the settled village tribes along the river, as well as the nomadic horse tribes of the plains. This region operated as a center of trade and the dissemination of culture and goods since prehistoric times. However, it was the work of the River Basin Surveys which resulted in the concerted effort to examine the physical remains of this cultural legacy.

Most of the early archeological investigations in this region centered upon the remains of the village cultures along the river, particularly the Mandan, Hidatsa, and Arikara. This work includes Will and Spinden (1906), Libby (1908), De Land (1906), Stirling (1924), Will (1924), Spaulding (1956), Strong (1940), and Will and Hecker (1944). Of course, the work of the River Basin Surveys from 1946 to 1964 produced numerous reports of surveys and excavations. Those that pertain to the Lake Sakakawea area will be discussed in Section 4.2. The best overall synthesis of the archeology of the Middle Missouri region is Lehmer (1971).

The Mandan, Hidatsa, and Arikara also presented ethnographers with a fertile field of study, because of the wealth of historic accounts left by early visitors. Dr. Washington Matthews (1877) collected information about the Hidatsa during his service in the region as a U.S. Army surgeon. Dr. Ferdinand V. Hayden (1862), the famous geologist, also made some observations about the tribes on the Upper Missouri. Morgan (1871) studied the material culture of the Arikara. Gilbert L. Wilson (1917, 1924, 1934) began ethnographic studies of the Hidatsa beginning in 1908. Will and Hyde (1917) looked at corn and agriculture among the tribes of the Upper Missouri. Holder (1970) examined the effect of trade between nomadic plains tribes and the settled agricultural communities on the Missouri River. Other important ethnographic studies include Densmore (1923), Bowers (1950, 1965), and Metcalf (1963a).

The amount of historic material on the Missouri River Valley is truly overwhelming. Even the earliest fur traders and explorers appear to have left accounts of their adventures. This would include the Verendryes (Smith 1980), who visited the Mandan on the Missouri River in 1738 and 1942-1743; James McKay, who first came to the Knife River villages in 1787; D'Eglise, sent by the Spanish governor of Louisiana in 1791 (Nasatir, 1952); David Thompson and Alexander Henry, traders for the British North West Company, who visited the Mandan and Hidatsa at the end of the eighteenth century (Coues 1897); and Lewis and Clark, the American explorers, who traveled up the Missouri River in 1804 and returned in 1806 (DeVoto 1953). Those who were associated with the American fur trade also left journals and accounts of the tribes along the Upper Missouri, including Denig (1961), Boller (1972), and Larpenteur (1962), among others. Visitors to the region also left their impression to be published, including Catlin (1973), Prince Maximillian, Culbertson (1952), to name just a few. Bower's 1948 dissertation dealt with the history of the Mandan and Hidatsa. The most recent overall history of the village Indians of the Upper Missouri is Meyer (1977).

On the Euro-American sites in the Garrison Dam region, Ray Mattison (1951a, 1951b) produced several reports while working for the National Park Service as part of the Missouri River Basin Project. Several of the sites Mattison located were later excavated during the River Basin Surveys, and reports of these investigations were produced by Smith (1960); and Woolworth and Wood (1960).

Local county histories are also sources of information, although not always historically accurate. For example, the only county history of Mercer County, written by C. B. Heindemeyer (1932) is filled with local legends and inaccuracies. McLean County is better documented. In 1978, the McLean County Historical Society produced a massive volume, which organized local lore, oral history, historical research, and family biographies into individual township histories (Robinson 1978). More recently, a professional historian produced an excellent history of the town of Garrison (Sprunk 1980).

4.1.2 Site Files Search

A site files search for previously recorded sites was completed at the State Historical Society of North Dakota, Bismarck. The study area chosen for the files search includes a one-township and range buffer zone about each inventory area. The inventory areas are located in both Mercer and McLean Counties. Such a study area (33 townships and ranges) was chosen to give a comprehensive review of the range of site types in the area. With several exceptions, this includes Townships 145-149N, and Ranges 82-89W. Both verified (sites with SITS numbers) and nonverified (site leads without SITS numbers) locations were recorded. The information obtained during the site files search is listed in Table 4.1 (includes site number, site type, and location) and plotted on a regional map (Figure 4.1).

The total number of entries for previously recorded sites and non-verified site leads is 391. Of these, 273 (70%) are verified; 118 (30%) are nonverified site leads. The site types located during the inventory and the frequency of similar verified sites previously recorded in the study area are as follows:

	<u>Lake Sakakawea</u>	<u>Previously Recorded</u>
Stone Circle	37	118
Cultural Material Scatter	15	22
Rectangular Rock Arrangement	1	1
Bison Bone Scatter	1	2
Eagle Trapping Pit	1	8
Historic Structures	1	68

No site types were located during the Lake Sakakawea inventory that have not been previously recorded elsewhere in the study area. The converse is not true, however, as there are some site types in the general study area not present on the inventory areas. With the mounds historic site types as exceptions, the same general frequencies of site types recorded in the general study area were found during the Lake Sakakawea inventory. At the

Table 4.1
Previously Recorded Sites in the Project Study Area

Site Number ¹	Site Type ²	Legal Location ³
	(1) Krem/Arcis Townsite	T145N, R86W, Sections 11 and 12
	(2) Hist.-Krem Coal Mine	T145N, R86W, Section 22
32ME331	(3) Scraping Tool	T145N, R86W, Section 25
32ME332	(4) Lithic Scatter	T145N, R86W, Section 26
32ME340	(5) School Foundations	T145N, R86W, Section 27
32ME341	(6) School	T145N, R86W, Section 29
32ME333	(7) Scraper, Flake, Crockery Fragment	T145N, R86W, Section 29
32ME421	(8) Goetz Ring #3	T145N, R86W, Section 35
32ME420	(9) Goetz Ring #2	T145N, R86W, Section 36
32ME227	(10) Tipi Rings and Stone Alignments	T145N, R86W, Section 36
32ME419	(11) Goetz Ring #1	T145N, R86W, Section 36
	(12) Hist-Haatvit Coal Mine	T145N, R86W, Section 36
32ME296	(1) Hist. Farmstead	T145N, R87W, Section 2
32ME295	(2) Hist. Farmstead	T145N, R87W, Section 6
32ME159	(3) Tipi Ring	T145N, R87W, Section 6
32ME160	(4) Hist. Bldg. Remains	T145N, R87W, Section 6
32ME158	(5) Tipi Rings/Stone Alignments	T145N, R87W, Section 6
32ME161	(6) Hist. Foundations	T145N, R87W, Section 6
32ME163	(7) Tipi Rings/Stone Alignments	T145N, R87W, Section 7
32ME162	(8) Tipi Ring/Rock Cairn	T145N, R87W, Section 7
32ME281	(9) Coal Mine	T145N, R87W, Section 11
32ME282	(10) Hist. Farmstead	T145N, R87W, Section 11
	(11) Hist.-Keslar Coal Mine	T145N, R87W, Section 12
32ME260	(12) Hist. Farmstead	T145N, R87W, Section 14
32ME94	(13)	T145N, R87W, Section 17
32ME287	(14) Hist. Farmstead	T145N, R87W, Section 18
32ME164	(15) Hist. Buildings	T145N, R87W, Section 18
	(16) Hist. Schmidt Coal Mine	T145N, R87W, Section 19
32ME284	(17) Hist. Cemetery	T145N, R87W, Section 29
32ME166	(18) Tipi Rings/Stone Alignment	T145N, R87W, Section 29
32ME165	(19) Hist. Bldg. Remains	T145N, R87W, Section 29
32ME286	(20) Hist. Farmstead	T145N, R87W, Section 30
32ME167	(21) Tipi Rings	T145N, R87W, Section 31
32ME168	(22) Tipi Rings	T145N, R87W, Section 31
32ME169	(23) Tipi Rings/Stone Pt. Fragment	T145N, R87W, Section 31
32ME170	(24) Tipi Rings/Rock Cairn	T145N, R87W, Section 31
32ME171	(25) Tipi Rings	T145N, R87W, Section 31
32ME334	(26) Lithic Scatter	T145N, R87W, Section 35
32ME335	(27) Lithic Scatter	T145N, R87W, Section 35
32ME172	(1) Hist. Farmstead	T145N, R88W, Section 1
32ME173	(2) Tipi Rings	T145N, R88W, Section 1
32ME174	(3) Tipi Rings and Cairn	T145N, R88W, Section 1
32ME175	(4) Tipi Ring, Cairn, Rock Alignment	T145N, R88W, Section 1

Table 4.1 (continued)

Site Number ¹	Site Type ²	Legal Location ³
32ME176 (5)	Tipi Rings and Cairns	T145N, R88W, Section 1
32ME254 (6)	Stone Circles	T145N, R88W, Section 2
32ME179 (7)	Cairn Embellished	T145N, R88W, Section 2
32ME178 (8)	Tipi Rings and Cairns	T145N, R88W, Section 2
32ME177 (9)	Tipi Rings and Rock Alignments	T145N, R88W, Section 2
32ME111 (10)	Occupational (No. Hiner Coal Site)	T145N, R88W, Section 3
32ME180 (11)	Hist. Farmstead	T145N, R88W, Section 3
32ME290 (12)	Hist. Farmstead	T145N, R88W, Section 4
32ME182 (13)	Stone Circle	T145N, R88W, Section 4
32ME181 (14)	Stone Circle	T145N, R88W, Section 4
32ME183 (15)	Tipi Ring	T145N, R88W, Section 4
32ME184 (16)	Tipi Rings and Cairn	T145N, R88W, Section 4
(17)	Turtle Effigy Site (lead)	T145N, R88W, Section 5
32ME186 (18)	Tipi Ring	T145N, R88W, Section 9
32ME185 (19)	Lithic Scatter and Poss. Cairn	T145N, R88W, Section 9
32ME188 (20)	Lithic Debris	T145N, R88W, Section 9
32ME187 (21)	Lithic Debris Scatter	T145N, R88W, Section 9
(22)	Turtle Effigy Site	T145N, R88W, Section 10
32ME289 (23)	Hist. Farmstead	T145N, R88W, Section 10
32ME190 (24)	Stone Circle	T145N, R88W, Section 10
32ME189 (25)	Hist. Farmstead	T145N, R88W, Section 10
32ME191 (26)	Tipi Ring	T145N, R88W, Section 10
32ME195 (27)	Hist. Farmstead	T145N, R88W, Section 11
32ME192 (28)	Tipi Ring and Cairn	T145N, R88W, Section 11
32ME193 (29)	Stone Circle	T145N, R88W, Section 11
32ME194 (30)	Rock Cairn	T145N, R88W, Section 11
32ME288 (31)	Hist. Farmstead	T145N, R88W, Section 12
32ME220 (32)	Stone Circle	T145N, R88W, Section 12
32ME196 (33)	Tipi Rings	T145N, R88W, Section 12
32ME222 (34)	Stone Circle	T145N, R88W, Section 12
32ME199 (35)	Stone Circle	T145N, R88W, Section 12
32ME221 (36)	Hist. Farmstead	T145N, R88W, Section 12
32ME198 (37)	Stone Circle	T145N, R88W, Section 12
32ME163 (38)	Stone Circle	T145N, R88W, Section 12
32ME200 (39)	Stone Circle	T145N, R88W, Section 12
32ME109 (40)	Occupational (Eugene Keller Site)	T145N, R88W, Section 12
32ME107 (41)	Occupational (Adam Keller Site)	T145N, R88W, Section 13
32ME234 (42)	Stone Circle	T145N, R88W, Section 13
32ME108 (43)	Occupational (August Keller Site)	T145N, R88W, Section 14
32ME285 (44)	Stone Circles	T145N, R88W, Section 14
32ME238 (45)	Stone Circle	T145N, R88W, Section 14
32ME235 (46)	Lithic Scatter	T145N, R88W, Section 14
32ME239 (47)	Hist. Farmstead	T145N, R88W, Section 14

Table 4.1 (continued)

Site Number ¹	Site Type ²	Legal Location ³
32ME237 (48)		T145N, R88W, Section 14
32ME236 (49)	Stone Circle	T145N, R88W, Section 14
32ME243 (50)	Hist. Fieldstone Foundations, Recl. Poss. Barn, House - Function Unknown	T145N, R88W, Sections 15 and 16
32ME244 (51)	Stone Circle	T145N, R88W, Section 15
32ME240 (52)	Stone Circle	T145N, R88W, Section 15
32ME241 (53)	Stone Circle	T145N, R88W, Section 15
32ME242 (54)	Stone Circle	T145N, R88W, Section 15
32ME247 (55)	Stone Circle	T145N, R88W, Section 16
32ME246 (56)	Lithic Scatter	T145N, R88W, Section 16
32ME245 (57)	Stone Circle and Rock Cairn	T145N, R88W, Section 16
32ME325 (58)	Scraping Tool	T145N, R88W, Section 20
32ME214 (59)	Lithics Quarry	T145N, R88W, Section 22
32ME213 (60)	Occupational, Stone Rings	T145N, R88W, Section 23
32ME250 (61)	Stone Circle	T145N, R88W, Section 23
32ME248 (62)	Stone Circle	T145N, R88W, Section 23
32ME251 (63)	Stone Circle	T145N, R88W, Section 23
32ME249 (64)	Concrete Foundation	T145N, R88W, Section 23
32ME224 (65)	Abandoned Farmstead	T145N, R88W, Section 24
32ME204 (66)	Occupational, Stone Rings	T145N, R88W, Section 26
32ME291 (67)	Hist. Farmstead	T145N, R88W, Section 26
32ME205 (68)	Lithic Scatter	T145N, R88W, Section 26
32ME252 (69)	Stone Circle	T145N, R88W, Section 30
32ME225 (70)	Stone Circle and Cairns	T145N, R88W, Section 33
32ME206 (71)	Occupational, Stone Rings	T145N, R88W, Section 34
32ME207 (72)	Occupational, Stone Rings	T145N, R88W, Section 34
32ME253 (73)	Hist. Foundation	T145N, R88W, Section 34
32ME230 (74)	Tipi Ring	T145N, R88W, Section 36
32ME226 (75)	Tipi Ring	T145N, R88W, Section 36
32ME232 (76)	Tipi Ring/Cairn/Alignments	T145N, R88W, Section 36
32ME228 (77)	Tipi Ring	T145N, R88W, Section 36
32ME229 (78)	Tipi Ring	T145N, R88W, Section 36
32ME233 (79)	Tipi Ring	T145N, R88W, Section 36
32ME231 (80)	Tipi Ring	T145N, R88W, Section 36
32ME30 (1)	CM and Bone Scatter, Camp Site?	T146N, R84W, Sections 6 and 31
32ME67 (2)	Hist-Mannhaven Townsite	T146N, R84W, Section 7
32ME44 (3)	Occupational	T146N, R84W, Section 6
	(4) Campsite	T146N, R84W, Section 12
32ME13 (5)	High Butte Effigy and Village	T146N, R84W, Section 13
32ME103 (6)	Mound - High Butte Mound	T146N, R84W, Section 31
	(7) Unknown	T146N, R84W, Section 31
	(8) Mound	T146N, R84W, Section 31
32ME74 (1)	Scatter of Bone and Pottery	T146N, R85W, Section 7
32ME32 (2)	Gravel Burial	T146N, R85W, Section 12

Table 4.1 (continued)

Site Number ¹	Site Type ²	Legal Location ³
	(3) Fort Manuel Lisa	T146N, R85W, Section 13
	(4) Fort Vandeburgh	T146N, R85W, Sections 13 and 24
	(5) Naesatz P.O.	T146N, R85W, Section 20
	(6) Lewis and Clark Campsite April 8, 1805	T146N, R85W, Sections 13 and 24 T146N, R84W, Sections 12 and 19
32ME516	(1) Hist. Adobe Building	T146N, R86W, Section 2
	(2) Lithic Scatter	T146N, R86W, Section 2
	(3) Mounds	T146N, R86W, Section 3
32ME57	(4) Mound	T146N, R86W, Section 3
	(5) Stone Alignment	T146N, R86W, Section 5
32ME75	(6) Tipi Ring	T146N, R86W, Sections 7 and 18
32ME83	(7) Stone Rings	T146N, R86W, Section 7
32ME79	(8) St. Peter's Cemetery	T146N, R86W, Section 10
32ME78	(9) Hist. Church Foundation	T146N, R86W, Section 15
32ME76	(10) Stone Rings	T146N, R86W, Section 18
	(1) Hist. Sod Structure	T146N, R87W, Section 4
32ME73	(2) Hist. Farmstead	T146N, R87W, Section 4
32ME80	(3) Immanuel Cemetery	T146N, R87W, Section 11
32ME255	(4) Stone Circles	T146N, R87W, Section 16
32ME273	(5) Hist. Trail	T146N, R87W, Section 16
32ME71	(6) Hist. Structure and Trash Scatter	T146N, R87W, Section 16
32ME272	(7) Kronthal Cemetery	T146N, R87W, Section 20
32ME274	(8) Hist. Farmstead	T146N, R87W, Section 21
32ME256	(9) Stone Circle	T146N, R87W, Section 21
32ME276	(10) Hist. Farmstead	T146N, R87W, Section 22
32ME280	(11) Koehler Family Cemetery	T146N, R87W, Section 22
32ME257	(12) Lithic Scatter	T146N, R87W, Section 22
32ME270	(13) Rammed Earth Building and Hist. Old Homestead Farmstead	T146N, R87W, Section 23
32ME259	(14) Stone Circles	T146N, R87W, Section 25
32ME258	(15) Stone Circles	T146N, R87W, Section 25
32ME279	(16) Hist. Farmstead	T146N, R87W, Section 27
32ME277	(17) Hist. Farmstead	T146N, R87W, Section 27
32ME267	(18) Stone Circle	T146N, R87W, Section 28
32ME278	(19) Hist. Farmstead	T146N, R87W, Section 28
32ME77	(20) Lithic Scatter	T146N, R87W, Section 30
32ME263	(21) Stone Circles	T146N, R87W, Section 26
32ME275	(22) Hist. Foundation	T146N, R87W, Section 26
32ME268	(23) Hist. Farmstead	T146N, R87W, Section 26
32ME264	(24) Stone Circles	T146N, R87W, Section 26
32ME261	(25) Stone Circles	T146N, R87W, Section 26
32ME265	(26) Stone Circles	T146N, R87W, Section 26
32ME269	(27) Hist. Rural School	T146N, R87W, Section 26
32ME262	(28) Stone Circle	T146N, R87W, Section 26
32ME266	(29) Stone Circles	T146N, R87W, Section 26

Table 4.1 (continued)

Site Number ¹	Site Type ²	Legal Location ³
	(1) Camp	T146N, R88W, Section 3
32ME71	(2) Burial/Hist. Site Area	T146N, R88W, Section 3
32ME16	(3) Occupation	T146N, R88W, Section 3
	(4) Lost Village	T146N, R88W, Section 3
32ME17	(5) Occupational	T146N, R88W, Section 4
32ME72	(6) Hist. "Ree Landing"	T146N, R88W, Section 4
	(7) Ree - originally Stoellington	T146N, R88W, Section 4
32ME48	(8) Occupational	T146N, R88W, Section 5
32ME49	(9) Occupational	T146N, R88W, Section 5
	(10) Camp	T146N, R88W, Section 6
32ME51	(11) Occupational	T146N, R88W, Section 7
	(12) Unknown	T146N, R88W, Section 8
	(13) Camp	T146N, R88W, Section 12
	(14) Camp	T146N, R88W, Section 12
32ME65	(15) Occupational, Rock Cairn	T146N, R88W, Section 14
32ME66	(16) Tipi Ring	T146N, R88W, Section 14
	(17) Unknown	T146N, R88W, Section 14
	(18) Unknown	T146N, R88W, Section 14
32ME95	(19) Tipi Ring	T146N, R88W, Section 16
	(20) Camp	T146N, R88W, Section 17
	(21) Unknown	T146N, R88W, Section 18
	(22) Hist. Farmstead	T146N, R88W, Section 21
32ME82	(23) Neusatz Cemetery	T146N, R88W, Section 21
32ME81	(24) Peace Cemetery	T146N, R88W, Section 26
32ME283	(25)	T146N, R88W, Section 26
32ME389	(26) Occupational, Tipi Rings and Cairns	T146N, R88W, Section 28
32ME116	(27) Tipi Rings	T146N, R88W, Section 28
32ME115	(28) Tipi Rings and Cairns	T146N, R88W, Section 28
32ME390	(29) Occupational, Tipi Ring	T146N, R88W, Section 28
	(30) Turtle Effigy Two	T146N, R88W, Section 32
	(31) Hist. Farmstead	T146N, R88W, Section 22
32ME97	(32) Tipi Rings	T146N, R88W, Section 22
32ME96	(33) Tipi Rings	T146N, R88W, Section 22
32ME98	(34) Tipi Rings	T146N, R88W, Section 22
	(35) Hist. Farmstead	T146N, R88W, Section 22
32ME100	(36) Tipi Rings	T146N, R88W, Section 22
32ME99	(37) Tipi Rings	T146N, R88W, Section 22
32ME216	(38) Tipi Rings	T146N, R88W, Section 33
	(39) Hist. Farmstead	T146N, R88W, Section 33
32ME343	(40) Tipi Rings	T146N, R88W, Section 33
32ME342	(41) Tipi Rings	T146N, R88W, Section 33
32ME215	(42) Occupational, Tipi Ring	T146N, R88W, Section 33
32ME62	(1) Rock Cairn	T146N, R89W, Section 6
32ME64	(2) Occupational, Rock Cairn	T146N, R89W, Section 6
32ME50	(3) Tipi Ring and Eagle Trap	T146N, R89W, Section 12
32ME505	(4) Hist. Cemetery	T146N, R89W, Section 28

Table 4.1 (continued)

Site Number ¹	Site Type ²	Legal Location ³
32ME506	(5) Stone Circle	T146N, R89W, Section 31
32ME507	(6) Stone Circles	T146N, R89W, Section 31
32ME504	(7) Lithic Scatter	T146N, R89W, Sections 27 and 34
	(1) Tipi Rings	T146N, R90W, Section 9
	(2) Tipi Rings	T146N, R90W, Section 10
32ME508	(3) Stone Circle	T146N, R90W, Section 24
32ME509	(4) Lithic Scatter	T146N, R90W, Section 26
32ME511	(5) Stone Circle and Trail	T146N, R90W, Sections 26 and 27
32ME513	(6) Defiance District	T146N, R90W, Sections 20 and 30
32ME510	(7) Lithic Scatter	T146N, R90W, Section 34
32ML70	(1) Lithic Scatter, Rock Cairn, Tipi Ring	T147N, R83W, Section 18
	(2) Historic Coal Harbor P.O.	T147N, R83W, Section 23
	(3) Silver City Townsite	T147N, R83W, Section 31
32ML52	(1) Occupational, Garrison Townsite	T147N, R84W, Section 6
32ML12	(2) Occupational	T147N, R84W, Section 7
	(3) Roach P.O.	T147N, R84W, Section 10
	(4) Hidatsa	T147N, R84W, Section 15
32ML13	(5) Occupational	T147N, R84W, Section 16
	(6) Lewis and Clark Campsite August 13, 1806	T147N, R84W, Section 17
32ME37	(7) Occupational	T147N, R84W, Section 12
32ME35	(8) Occupational	T147N, R84W, Section 20
32ME36	(9) Earthlodge Village	T147N, R84W, Section 19
	(10) Garrison Dam	T147N, R84W, Sections 30 and 31
	(11) Earthlodge Village	T147N, R84W, Section 32
32ML407	(12) Lithic Scatter	T147N, R84W, Section 34
32ML51	(13) Occupational	T147N, R84W, Section 34
32ML103	(14) Occupational	T147N, R84W, Section 34
32ML104	(15) Buffalo Jump	T147N, R84W, Section 34
	(16) Coal Harbor Original Townsite	T147N, R84W, Section 35
	(17) Historic Victoria	T147N, R84W, Section 35
32ME39	(1) Occupational	T147N, R85W, Section 20
	(2) Unknown	T147N, R85W, Section 20
32ME38	(3) Occupational	T147N, R85W, Section 21
32ME462	(4) Lithic Scatter	T147N, R85W, Section 23
	(5) Probable Camp	T147N, R85W, Section 23
	(6) Occupational	T147N, R85W, Section 25
	(7) Probable Workshop	T147N, R85W, Section 27
32ME515	(8) 3 Standing Structures	T147N, R85W, Section 29
32ME517	(9) Farmstead	T147N, R85W, Section 31
32ME380	(10) Rock Arrangements Rectangular	T147N, R85W, Section 34

Table 4.1 (continued)

Site Number ¹	Site Type ²	Legal Location ³
32ME381	(11) Possible Burial Site	T147N, R85W, Section 34
32ME391	(12) Tipi Rings	T147N, R85W, Section 35
	(13) Unknown	T147N, R85W, Sections 3 and 4
32ML8	(14) Tepee Rings	T147N, R85W, Section 9
32ML1	(15) Hist. Fort Stevenson Site	T147N, R85W, Section 10
32ML11	(16) Occupational	T147N, R85W, Section 17
32ME37	(17) Buried Cultural Zone	T147N, R85W, Section 12
	(1) Adobe Brick House	T147N, R86W, Section 2
	(2) Habitation	T147N, R86W, Section 24
32ME514	(3) Possible Quarry Site	T147N, R86W, Sections 26 and 35
	(4) Unknown	T147N, R86W, Section 26
	(5) Camp and/or Workshop	T147N, R86W, Section 26
	(6) Expansion P.O./Township	T147N, R86W, Section 27
	(7) Hist. Emmanuel Rock	T147N, R86W, Section 27
32ME60	(8) Occupational	T147N, R86W, Section 27
32ME15	(9) Occupational, Rock Village	T147N, R86W, Section 27
32ME34	(10) Occupational	T147N, R86W, Section 28
	(11) Lewis and Clark	T147N, R86W, Section 29
	(12) Camp	T147N, R86W, Section 31
	(13) Unknown	T147N, R86W, Section 31
32ME41	(14) Occupational	T147N, R86W, Section 35
32ML66	(15) Stone Circle	T147N, R86W, Section 1
32ML172	(16) Cairns	T147N, R86W, Section 4
	(17) Stone Circles	T147N, R86W, Section 11
	(18) Unknown	T147N, R86W, Section 12
32ML61	(19) Stone Circles	T147N, R86W, Section 12
	(20) Lewis and Clark April 9, 1805	T147N, R86W, Section 18
32ML9	(21) Occupational, Battle Butte in the Big Pasture Site	T147N, R86W, Section 19
32ML45	(22) Occupational	T147N, R86W, Section 20
32ML46	(23) Hist. Trail	T147N, R86W, Section 20
32ML8	(24) Stone Circles	T147N, R86W, Section 9
	(25) Tepee Ring Site	T147N, R86W, Section 16
	(26) Tepee Ring Site	T147N, R86W, Section 18
32ME45	(27) Occupational	T147N, R86W, Section 28
32ML40	(28) Occupational	T147N, R86W, Section 27
	(29) Tepee Ring Site	T147N, R86W, Section 11
	(1) Mounds (7#)	T147N, R87W, Section 31
32ME70	(2) Occupational	T147N, R87W, Section 33
	(3) Occupational	T147N, R87W, Section 33
32ME463	(4) Burial	T147N, R87W, Section 33
32ME42	(5) Burial	T147N, R87W, Section 34
32ME43	(6) Occupational	T147N, R87W, Section 34
	(7) Unknown	T147N, R87W, Section 36
	(8) Camp	T147N, R87W, Section 36
32ML72	(9) Stone Circle	T147N, R87W, Section 10

Table 4.1 (continued)

Site Number ¹	Site Type ²	Legal Location ³
32ML71	(10) Stone Circle	T147N, R87W, Section 10
	(11) Stone Circles	T147N, R87W, Section 11
32ML48	(12) Eagle Trap	T147N, R87W, Section 24
32ML40	(13) Occupational	T147N, R87W, Section 27
32ML49	(14) Hist. New Fort Berthold	T147N, R87W, Section 29
32ML2	(15) Like-a-Fishhook Village and Fort Berthold	T147N, R88W, Sections 25 and 26 T147N, R87W, Sections 30 and 31
32ML50	(16) Historic Site Indian Agency	T147N, R87W, Section 31
	(17) Teepee Ring Site	T147N, R87W, Section 8
	(1) Camp	T147N, R88W, Section 13
	(2) Camp	T147N, R88W, Section 14
	(3) Camp	T147N, R88W, Section 17
	(4) Historic Fort Berthold Trail	Runs 200 miles between Fort Stevenson and Fort Buford, through Fort Berthold
	(5) Ree P.O./Trade Center	T147N, R88W, Section 4
32ML69	(6) Tipi Ring	T147N, R88W, Section 14
	(7) Tipi Rings	T147N, R88W, Section 17
	(8) Nishu (Formerly known as Armstrong)	T147N, R88W, Section 21
	(9) Lewis and Clark April 10, 1805	T147N, R88W, Sections 28 and 33
	(10) Teepee Ring Site	T147N, R88W, Section 20
	(11) Teepee Ring Site	T147N, R88W, Section 20
32ME59	(1) Occupational, Grandmother's Lodge	T147N, R89W, Section 18
32ME54	(2) Occupational Area, Flint	T147N, R89W, Section 18
32ME55	(3) Occupational Area, Flint and Sharps	T147N, R89W, Section 18
32ME58	(4) Burial	T147N, R89W, Section 19
	(5) Red Butte	T147N, R89W, Section 19
32ME53	(6) Occupational	T147N, R89W, Section 21
32ME63	(7) Mound Group	T147N, R89W, Section 31
32ME61	(8) Tipi Ring	T147N, R89W, Section 32
32ML37	(9) Occupational	T147N, R89W, Section 6
	(10) Prehistoric (Champuosoerus)	T147N, R89W, Section 9
32ML38	(11) Occupational	T147N, R89W, Section 14
	(12) Occupational	T147N, R89W, Section 15
	(13) Teepee Ring Site	T147N, R89W, Section 14
	(1) Lewis and Clark	T147N, R90W, Section 9
	(2) Occupational, Red Butte Bay Site	T147N, R90W, Section 24
	(3) Lewis and Clark April 11, 1805	T147N, R90W, Section 2
32ML36	(4) Occupational	T147N, R90W, Section 3
	(5) Elbowoods	T147N, R90W, Section 4

Table 4.1 (continued)

Site Number ¹	Site Type ²	Legal Location ³
	(6) Scatter Townsite	T147N, R90W, Section 5
	(7) Old Elbowood Bridge	T147N, R90W, Section 10
	(1) Stone Circles	T148N, R82W, Section 28
	(1) Hist-Johnson Coal Mine	T148N, R83W, Section 18
	(2) Hist-Ulrich Coal Mine	T148N, R83W, Section 17
	(3) Hist-Totten Trail	Runs 126 miles between Fort Stevenson and Fort Totten
32ML117	(1) Occupational, Tipi Rings	T148N, R84W, Section 7
32ML402	(2) Lithic Scatter	T148N, R84W, Section 16
32ML169	(3) Stone Circle, Rock Carin, Rock Alignment	T148N, R84W, Section 23
	(4) Hist. Kunkel Coal Mine	T148N, R84W, Section 18
	(5) Hist. Seibel Coal Mine	T148N, R84W, Section 30
	(6) Hist-Rupp Coal Mine	T148N, R84W, Section 35
	(7) Medicine Wheel	T148N, R84W, Section 36
32ML187	(1) Stone Circles	T148N, R85W, Sections 19 and 30
32ML68	(2) Stone Circle	T148N, R85W, Section 19
32ML116	(3) Buffalo Jump with Cairn Funnel	T148N, R85W, Section 20
32ML163	(4) Stone Circle	T148N, R85W, Section 21
	(5) Hist.-Hill Coal Mine	T148N, R85W, Section 25
32ML164	(6) Stone Circle	T148N, R85W, Section 28
32ML59	(7) Stone Circles	T148N, R85W, Section 29
32ML171	(8) Foundation	T148N, R85W, Section 30
	(9) Tipi Rings	T148N, R85W, Section 31
	(10) Hidatsa Village	T148N, R85W, Section 31
	(11) Unknown	T148N, R85W, Sections 33 and 34
32ML10	(12) Stone Circles in Area ½ Mile Long	T148N, R85W, Section 31
	(13) Earthlodge Village Amahomi	T148N, R85W, Section 7
	(1) Hist. Duchene Black Diamond Coal Mine	T148N, R86W, Section 16
	(2) Emmet P.O.	T148N, R86W, Section 20
	(3) Roney P.O.	T148N, R86W, Section 23
32ML175	(4) Lithic Scatter	T148N, R86W, Section 26
32ML178	(5) Log Buildings	T148N, R86W, Sections 31 and 32
32ML177	(6) Stone Circle	T148N, R86W, Section 32
32ML186	(7) Stone Circle	T148N, R86W, Section 36
32ML58	(8) Stone Circles	T148N, R86W, Section 36
	(1) Blackwater P.O.	T148N, R87W, Section 17
	(1) Camp	T148N, R89W, Section 32
32ML39	(2) Occupation	T148N, R89W, Section 32

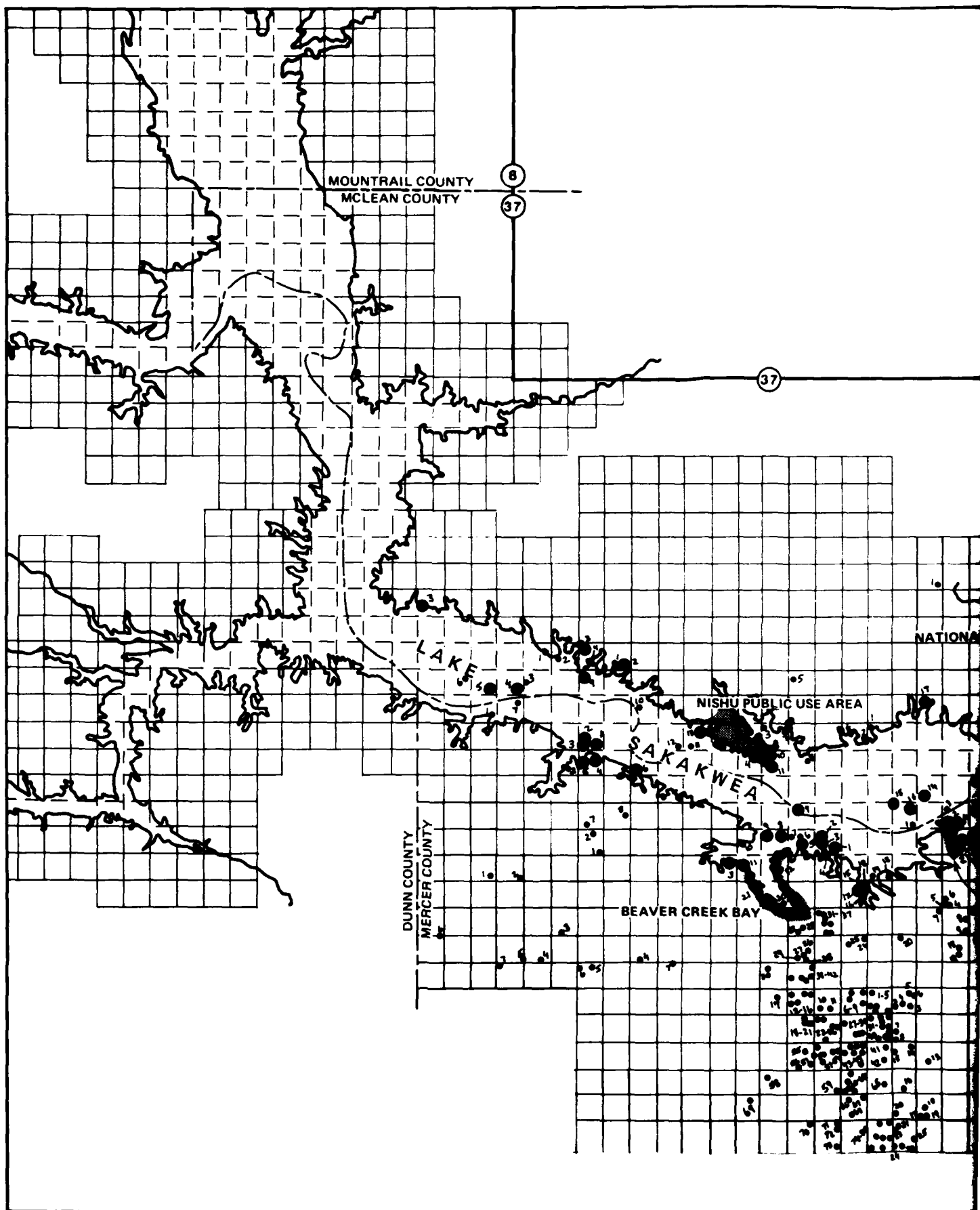
Table 4.1 (continued)

Site Number ¹	Site Type ²	Legal Location ³
	(3) Historic Fort Berthold Trail	Runs 200 miles between Fort Stevenson and Fort Buford, through Fort Berthold
	(4) Unknown	T148N, R89W, Section 31
	(1) Camp	T148N, R90W, Section 35
	(2) Camp	T148N, R90W, Section 36
	(3) Tepee Ring Site	T148N, R90W, Section 19
32ML119	(1) Martha A. Watkins Homestead	T149N, R83W, Section 9
32ML118	(2) Hist. "Scatter"	T149N, R83W, Section 21
	(3) Endress P.O.	T149N, R83W, Section 26
32ML115	(4) Garing Homestead	T149N, R83W, Section 28
32ML224	(5) Stone Circle	T149N, R83W, Section 33
	(1) Mower P.O.	T149N, R85W, Section 12
	(2) Minter Strip Mine	T149N, R85W, Section 12
32ML165	(3) Architectural Building and Historical Site	T149N, R85W, Section 15
	(1) Jeanette P.O.	T149N, R86W, Section 3

¹Site information obtained from the State Historical Society of North Dakota during a files search completed on August 3, 1982. Both verified and nonverified site locations appear in this table. Only the verified sites have a SITS number. The small numbers in parentheses refer to the map locations (Figure 4.1).

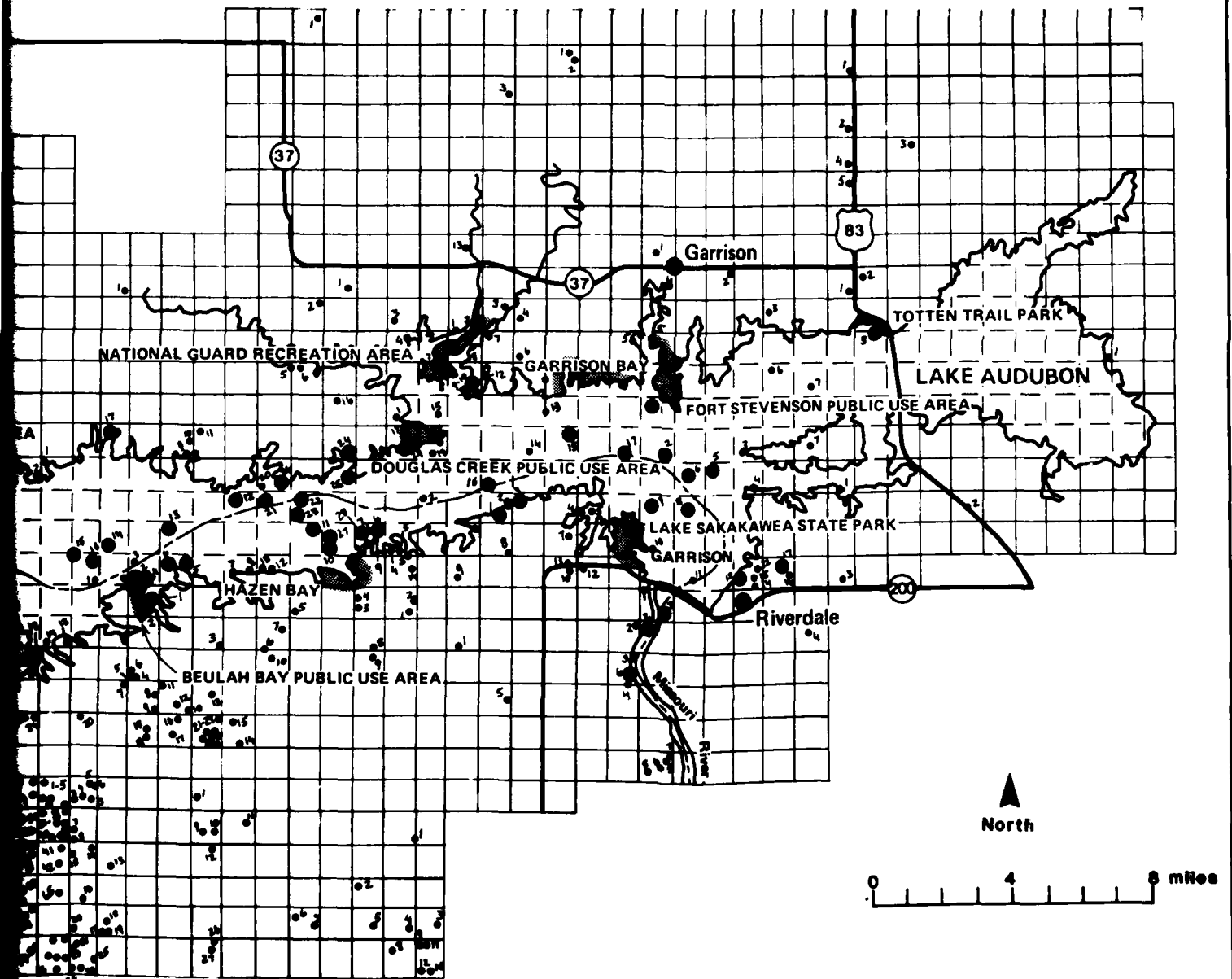
²The nomenclature used to refer to stone circle features varies throughout the table and includes "tepee ring(s)," "tipi rings(s)," and "stone circle(s)." Each instance reflects the reference as it appears on the site form. The phrase "stone circle(s)" is used throughout this report to refer to the stone circle features identified during the inventory.

³Information detailing specific site locations within sections has been omitted in an effort to help protect the resources. Such information is available from the State Historical Society of North Dakota.



LAKE SAKAKAWEA INVENTORY
PREVIOUSLY RECORDED ARCHEOLOGICAL
SITES IN STUDY AREA

Figure 4.1



date of the site files search, 32ME13 (High Butte Effigy and Village), is the only site in the study area listed as a National Register property. The Highway 8 Site (32DU2) in Dunn County and just out of the study area has been listed as eligible to the National Register of Historic Places.

Previously recorded sites and nonverified site leads located within the boundaries of the inventory areas appear in Table 4.2. In addition to the site files search, various survey reports of investigations in the region were examined and are discussed below in Section 4.2.

4.2 PREVIOUS INVESTIGATIONS

Little archeological work was done in the region including the project area before the River Basin Surveys of the 1940s and 1950s. The majority of the significant archeological investigations in the Garrison Dam area were directly tied to the salvage efforts of the Missouri River Basin Project. After that, the kinds of studies in this area was restricted to small surveys of a limited nature, specifically those related to construction projects or other work required by recent cultural resources legislation.

4.2.1 Early Work

One of the first attempts to examine the prehistoric remains of North Dakota was the preliminary surveys undertaken by J. V. Brower and E. R. Steinbrueck around the turn of the century. Between 1902 and 1908, Steinbrueck and A. B. Stout, working for the State Historical Society of North Dakota, located, mapped, and made collections at various village sites. Unfortunately, none of this was published. Some of the sites they mapped were in the Lake Sakakawea area, such as Rock Village (32ME15) (Lehmer 1971:35).

In the summer of 1905, the Peabody Museum of Harvard University sponsored excavations at the Double Ditch site (32BL8), north of Bismarck. This work was published by Will and Spinden (1906). In 1911 and again in 1919, Will and Spinden located various village sites along the Missouri

Table 4.2
Previously Recorded Sites Located Within the Inventory Areas

<u>Inventory Area</u>	<u>Site Number</u>	<u>Site Type</u>	<u>Legal Location</u>
Nishu Public Use Area		Tepee Ring Site	T147N, R89W, Section 14
		Tepee Ring Site	T147N, R88W, Section 20
		Tepee Ring Site	T147N, R88W, Section 20
		Historic Fort Berthold Trail	T147N, R88W - Runs 200 miles between Fort Stevenson and Fort Buford through Fort Berthold
Douglas Creek Public Use Area		Tepee Ring Site	T147N, R86W, Section 11
	32ML61	Stone Circles	T147N, R86W, Section 12
National Guard Recreation Area	32ML186	Stone Circles	T148N, R86W, Section 36
	32ML58	Stone Circle	T148N, R86W, Section 36
	32ML187	Stone Circles	T148N, R85W, Sections 19 and 30
	32ML68	Stone Circle	T148N, R85W, Section 19
	32ML171	Foundation	T148N, R85W, Section 30
Garrison Bay		No previously recorded sites or site leads	
Fort Stevenson State Park		No previously recorded sites or site leads	
Totten Trail Park		Historic Totten Trail	Runs 126 miles between Fort Stevenson and Fort Totten
Lake Sakakawea State Park		Occupational	T147N, R85W, Section 25
Hazen Bay Recreation Area		No previously recorded sites or site leads	
Beulah Bay Public Public Use Area		Historic Sod House	T146N, R87W, Section 4
	32ME73	Historic Farmstead	T146N, R87W, Section 4
	32ME70	Occupational	T147N, R87W, Section 33
Beaver Creek Bay	32ME95	Tepee Rings	T146N, R88W, Section 16
		Historic Farmstead	T146N, R88W, Section 21
		Camp	T146N, R88W, Section 17

River. Observations about these sites were published by Will (1924). In this paper, Will identified the Mannhaven site as Hidatsa, mentioned a winter village near Wolf Creek, and described several sites later inundated by Lake Sakakawea, including Rock Village (32ME15), two late Arikara sites (including Star Village, 32ME16), Old Fort Berthold (Like-a-Fishhook Village, 32ML2), the Bad Lands Site (better known as Night Walker's Butte, 32ML39), and the Elbowoods site (Lehmer 1971:36).

In 1908, O. G. Libby published a paper synthesizing information on village plans of the Mandan. Libby maintained that Mandan and Hidatsa village sites could be culturally identified as distinct and separated. The focal point of this separation was the presence of plazas in the Mandan villages and the lack of such plazas in the Hidatsa villages (Lehmer 1971:36). The theme of identifying the separating Mandan and Hidatsa cultures has remained an issue throughout the ensuing years of professional work in North Dakota after Libby's original paper (cf, Hartle 1960, Dill 1975).

During the 1930s, Columbia University became involved in excavations in the Dakotas. In 1932, William Duncan Strong excavated in the vicinity of Mobridge and, in 1938, at the Fort Abraham Lincoln village site (Slant Earthlodge Village, 32MO26) near Bismarck. Albert Spaulding excavated at the Arzberger site (39HU6) near Pierre in 1939. Strong summarized the work to date in the Dakotas in an article published in 1940. In this paper, Strong divided the cultural development of native peoples in the region into prehistoric, protohistoric, and historic periods. In the prehistoric period, the excavations at Arzberger revealed a culture that was strongly linked to the Upper Republican sites on the Plains and was probably ancestral to both Pawnee and Arikara. For the protohistoric period, Strong thought the Rygh site was probably Mandan in origin while the Mobridge site was related to the Hidatsa. By historic times, the Mandan occupied the Missouri River Valley in North Dakota, as represented by the Double Ditch and Fort Abraham Lincoln village sites, while the Arikara sites were located in South Dakota, best represented by the Leavenworth site (Strong 1940) (Lehmer 1971:36).

In 1944, Will and Hecker published an important synthesis which classified various village sites in North and South Dakota as either Arikara, Hidatsa, or Mandan. In addition, the Mandan culture was broken into three major periods: the Archaic Mandan, the Middle Mandan, and the Later Heart River phases. After contact, the Later Heart River phase broke down into a Decadent period. For the most part, ceramic styles were used as the basis for these divisions. While the differences between Arikara and Mandan sites was fairly easily seen, Will and Hecker were unable to distinguish Mandan from Hidatsa on the basis of pottery styles. Thus the identification of Hidatsa villages was based on historic sources. The Archaic Mandan period, represented by sites stretching from the Grand to the Knife River, had primitive pottery, similar to Woodland traits of the Mill Creek site, and rectangular houses typical of the Plains Village site. In the Middle Mandan period, which focused on sites between the Cannonball and Knife Rivers such as the Huff site, came the beginning of fortifications. During this period, the Mandan were thought to reach their greatest number. The Later Heart River Phase, best exemplified by the Double Ditch site and Slant village (Old Fort Abraham Lincoln village), is represented by circular lodges, crowded together in a small village area. The Mandan population, by this time, was reduced to five or six villages in the Heart River region. In post-contact Decadent times, the pottery was poorly made, evidence of the presence of Euro-American manufactured metal utensils and cooking pots and their effect on native culture (Will and Hecker 1944). Most of the better known village sites in the Lake Sakakawea area would date from this last period.

4.2.2 The River Basin Surveys

While the early work of archeologists in North Dakota was directed at describing the more spectacular village sites, other kinds of sites in the Garrison Reservoir region went virtually unnoticed. Prior to 1944, the North Dakota Historical Society had noted the probable presence of 10 or so village sites in the Reservoir area. Some of these locations were confirmed by visits from archeologists, while others were unconfirmed reports of local informants.

At the end of World War II, both the U.S. Army Corps of Engineers and the Bureau of Reclamation began to think in terms of creating an ambitious series of dams and reservoirs on major American rivers and drainages. The Flood Control Act of 1944 laid the framework for work to begin along the Missouri River. It became obvious to members of the anthropological and historical community that such a program would threaten a large number of archeological sites with imminent destruction. A number of concerned individuals and organizations, both inside and outside of Government, were thus motivated to lobby for the creation of an integrated salvage program, to record and save what they could before the reservoirs were filled. The Federal Government, represented by the Department of the Interior, took an active role in organizing and managing this effort. A memorandum of agreement was entered into between the National Park Service and the Smithsonian Institution, whereby the Park Service was responsible for the overall planning, funding, and management of the salvage program, while the Smithsonian took an active part in the actual fieldwork. In addition, various universities and museums were encouraged to participate in the effort by sponsoring fieldwork in the threatened regions and receiving some Federal financial support in return.

Beginning with the formation of the Inter-Agency Salvage Program in 1945, a great deal of attention was turned towards the Garrison Dam and Reservoir area. In 1946, the River Basin Surveys sent out a one-month reconnaissance to Garrison Dam led by two archeologists, Paul L. Cooper and J. Joseph Bauxar. The primary purpose of this inspection was to determine whether dam construction activities were endangering cultural resources.

The first major survey of the Lake Sakakawea region was carried out from June 13 to August 19, 1947 by archeologist Marvin F. Kivett and student assistants Gordon F. McKenzie, John L. Essex and Leo L. Stewart. They covered portions of the reservoir area both above and below the Fort Berthold Indian Reservation that were accessible by automobile. The coverage was most complete along the river between the dam and the lower boundary of the reservation. Other areas were merely spot checked. Sites were located through both surveys and by gathering information from local people.

The Kivett survey recorded 70 archeological sites--61 of which were visited by the reconnaissance team and 9 of which were reported to occur within the Fort Berthold Indian Reservation and were not visited. Of the 70 sites, 59 were classified as occupational areas, 1 as a burial, and 10 as of unknown function or origin. Eleven of the occupational sites were stone circle areas. The majority of the stone circles were situated above the 1,850-ft contour line and would not be impacted by the filling of the reservoir. Two earthlodge village sites were recorded: Rock Village (32ME15), which is near the Lake Sakakawea Project Area, and Crow Flies High Village (32MZ1), which is upriver in McKenzie County. The bulk of the occupational sites, however, were found buried in windblown and alluvial soils. These sites were found when exposed by erosion or cultivation. They usually revealed evidence of burning, lithic artifacts, animal bones, and pottery.

Of particular interest was the one burial site, 32ME42, because it is located within the Hazen Bay Recreational Area. It was a single semi-flexed burial exposed by erosion on a butte top, and excavated by Kivett. Few artifacts were found in association with the burial, and Kivett believed it was probably related to the occupation of the village site 32ME43, which was located nearby. At 32ME43 Kivett found hearths eroding from the cut bank of the stream which was a tributary to the Missouri. Animal bones, charcoal, pottery, and worked flint were also recorded.

Kivett felt that a few of the pottery sites might be assignable to Woodland groups. Sites which yielded only stone and bone artifacts, and lacked pottery, might even predate the Woodland occupation of this region. Most of the sites, however, were probably related to the later occupation of the region by Mandan, Hidatsa, and Arikara. Those sites with visible earthlodge circles were surely connected to those protohistoric and historic groups. Kivett rated the sites according to their archeological importance and the probability of loss. Of the 70 sites recorded, Kivett recommended that 20 be excavated. He also recommended that the Fort Berthold Indian Reservation be surveyed and that other areas that were not intensively surveyed during his short field effort should be examined in depth (Kivett and Wedel 1948).

It is clear that the Kivett survey was far from complete. He relied mostly on records in the State Historical Society, local informants, and intuition to locate sites. His methods consisted of driving into areas and checking logical site locations. It is impossible to estimate how many sites went unrecorded because more intensive survey methods were not employed. However, given the constraints of time and money and the state of archeological field methods at that time, Kivett's work can be viewed as a solid beginning of the recording of archeological remains in the area. His site forms are simple and direct, and they contain useful information.

In 1950, permission was granted to examine the Fort Berthold Indian Reservation. George Metcalf and an assistant were assigned to conduct this survey and spent seven weeks on the job, recording 55 new sites. In 1951, Metcalf (accompanied at various times by G. Hubert Smith and Lee Madison) spent an additional month investigating the reservation area, recorded 27 more sites, and tested 2 of those previously recorded. Metcalf's report of his work, which was published as part of the Smithsonian River Basin Survey Papers, presented information on 31 sites he had recorded (Metcalf 1963a). The last Arikara earthlodge (32ME49), dated to about 1907-1919, was mapped and described in terms of its visible attributes. This site was located near Beaver Creek and served various ceremonial functions. A hunting lodge of very recent origin was also described. It was located in Dunn County on the east side of the Little Missouri River. Metcalf also listed five sites which were shallow depressions thought to be eagle trapping pits. The historic literature indicated that such sites should be located on top of bluffs. Metcalf's survey proved that true, since all of the eagle trapping pits he recorded were on high ground. One, 32ME50, was located near the Beaver Creek Area. Rock cairns were also abundant in the area, and Metcalf described two of them. Stone circles, which Metcalf identified as tipi rings, were also common. Sometimes artifactual material was found associated with these sites, sometimes not. Metcalf acknowledged that the functional identification of stone circles is a problem. They may have served several different functions and been of different cultural and chronological affiliation.

In September and October 1951, Metcalf and G. Hubert Smith excavated two small sites, 32ME53 and 32DU9. Both were campsites and showed at least two periods of occupation. 32ME53 yielded few artifacts, but fireplaces were present. At 32DU9, a few pot sherds were uncovered. These tests indicated to Metcalf that small groups of hunters utilized the Missouri River over a period of time sufficient to allow changes in pottery styles to take place (Metcalf 1963a).

Metcalf's report is a very brief description of the kind of sites that were located within the Fort Berthold Reservation. He was not able to establish either chronological or cultural affiliations for many of the sites. The earthlodges he found were all recent, probably not dating back past 100 years. It was impossible then, and now, to guess the exact age or function of the stone cairns or stone circles. He suggests that the lack of contact period material around the stone features indicate that they might predate 1800. The limitations of Metcalf's data may be directly related to the limitations of the sites themselves. What Metcalf does provide is a group of sites which can be compared to the present survey data. The similarity in site types is striking, and this pattern is probably related to the prehistoric utilization of this region. The problems with Metcalf's report is that he fails to describe his field methods, thus it is not known if his survey coverage was as spotty as Kivett's. Nor does he list all of the sites he found. The interested reader must go directly to the North Dakota Historical Society archeological site files to discover all of the sites Metcalf recorded.

The River Basin Surveys were not the only organization conducting fieldwork in the Garrison Reservoir Area. With encouragement, and sometimes funding, from the National Park Service, several institutions initiated projects in this region starting in 1950. That year, G. Ellis Burcaw headed a Missouri Basin Project party which began large-scale test excavations at Rock Village. At the same time the North Dakota Historical Society, under a cooperative agreement with the Park Service, sent out a party under the leadership of Glenn Kleinsasser to investigate Like-a-Fishhook Village (32ML2) (Metcalf 1963a:6).

In 1951 Donald D. Hartle supervised a Missouri Basin Project team which continued work at Rock Village (32ME15) and then began excavations at Star Village (32ME16). Another Missouri Basin Project party, under G. Hubert Smith, conducted work at the site of Fort Stevenson. Additional work was done at Like-a-Fishhook Village by a field team of the State Historical Society, in agreement with the Park Service, under the direction of James H. Howard. That same year, Carling Malouf headed a Montana State University group which conducted test excavations at 32ME43, 32ME54, and 32ME55 (Metcalf 1963a:6).

In 1952 the Missouri Basin Project, the State Historical Society of North Dakota, and the Mountain State University continued working in the Garrison Reservoir region. Hartle excavated a deeply buried level at Rock Village, then began work at Nightwalkers Butte (32ML39). James Howard continued excavating at Like-a-Fishhook Village while G. Hubert Smith uncovered parts of Fort Berthold, a fur trading pot associated with the village. Malouf, meanwhile, led investigations at a number of sites near Sanish. Late in the season the two Missouri Basin Project teams, headed by Hartle and Smith, began excavations at the Grandmother's Lodge site (32ME59) (Metcalf 1963a:6-7).

Owing to a cut in appropriations, very little work was carried out in the Garrison Reservoir area in 1953. The only major excavations were those conducted by Alan R. Woolworth with a small party from the State Historical Society of North Dakota at the Grandmother's Lodge site (32ME59) (Metcalf 1963a:7).

In 1954 Woolworth finished the excavation of Grandmother's Lodge and began work at Fort Kipp (32MN1). The Missouri Basin Project and the State Historical Society of North Dakota continued working at Like-a-Fishhook Village until the rising waters of Garrison Reservoir caused the effort to be abandoned. Thus 1954 represented the last year that fieldwork could be carried out by the Missouri Basin Project within the Garrison Dam area (Metcalf 1963a:7).

In addition to funding archeological work, the Missouri Basin Project also supported historical research. The National Park Service assigned Ray H. Mattison to report on the historic sites in the Garrison Reservoir area. Mr. Mattison's report listed 77 sites and classified them as military posts; fur trade posts; existing towns, settlements, and Indian agencies; abandoned post offices; towns and settlements; abandoned Indian villages and agencies; historic roads and trails; historic islands; historic streams; miscellaneous historic sites and structures; miscellaneous historic landmarks; and highway bridges (Mattison 1951a). Mattison singled out Fort Stevenson, Fort Berthold, and Fort Kipp as the only historic sites of major significance within the reservoir area. This clearly indicated his bias towards fur trade and military sites. Following his recommendations, however, the Missouri Basin Project excavated Fort Stevenson, Fort Berthold and Like-a-Fishhook Village, and Kipp's Post. Mattison later published his report in North Dakota History. His work is a detailed listing of historic sites and showed considerable research. It is an invaluable tool for any historian attempting to deal with this region's historic heritage and the physical remains associated with it. The only problem with the listing is its lack of a detailed narrative to put the sites in their proper context.

Mattison also conducted historical research on Fort Berthold and Fort Stevenson. The report on Fort Stevenson was published in North Dakota History (Mattison 1951b). It concentrated upon the physical structures and dates of construction activity at this military post, as documented by Federal records and historic accounts.

The first archeological work in the Garrison Dam region to reach the press were the results of the excavations carried out by Montana State University, under the direction of Carling Malouf in 1951. Malouf had conducted test excavations at three sites in the reservoir area: 32ME43, 32ME54, and 32ME55. The excavations at 32ME43 found over 35 hearths, broken animal bone, lithic tools, and pottery. 32ME54 was smaller than 32ME43 but produced similar kinds of artifacts. Very little cultural material was recovered at 32ME55, which Malouf thought should be considered a continuation of 32ME54. In conclusion Malouf stated that the

three sites represent contemporaneous occupation areas, probably utilized as seasonal hunting camps. The pottery and various artifacts of European manufacture would place the sites in the protohistoric period, when the region was occupied by people of Mandan-Hidatsa-Arikara affiliation (Malouf 1951). The report was published in mimeograph as part of the Montana State University Anthropology and Sociology Papers series. It is simple, straightforward, and conveys useful information. However, the methods of the excavations could be criticized in terms of modern techniques, and the graphics are terrible.

The next report of archeological investigations in the Garrison Dam region was Alan Woolworth's work at Grandmother's Lodge, published in North Dakota History in 1956. This site (32ME59) was the supposed location of the home of the legendary Old Woman Who Never Dies, an important figure in Mandan, Hidatsa, and Crow mythology. The site was first described by O. G. Libby in 1907 and later by Will (1924). In 1952 D. D. Hartle and George Metcalf of the Missouri Basin Project began to excavate the site. In 1953 the excavations were taken over by the State Historical Society of North Dakota, under the direction of Alan Woolworth. The following year Woolworth, assisted by W. Raymond Wood, completed the excavations at Grandmother's Lodge. The results showed that the site was the remains of a rectangular earthlodge. Artifacts recovered included tools of Knife River Flint and some pottery. Woolworth recognized that the house form was similar to others found at the Brandon site, the Swanson site, the Dodd site, the Thomas Riggs site, the Paul Brave site, and the Huff site (Woolworth 1956). Lehmer (1971) placed it within the Extended Middle Missouri Variant of the Plains Village Tradition (A.D. 1100-1550). The site is probably more important in terms of its ethnographic, cultural, and religious symbolism than its archeology. However, it does represent the oldest Plains Village site in the Garrison Dam region.

Several articles relating to the River Basin Survey work in the Garrison Dam vicinity were published in Bulletin 176 of the Smithsonian Institution Bureau of American Ethnology in 1960. Two of these articles

dealt with historic sites. One, by G. Hubert Smith, detailed the archeological investigations at Fort Stevenson (32ML1). The site of this former military post was first identified by Kivett in 1947 and recorded by Metcalf in 1950. In the summer of 1951 a Missouri River Basin Project party, under the leadership of Smith, conducted excavations at the site. The preliminary results were published in North Dakota History in 1954. Smith's limited excavation of Fort Stevenson aimed at uncovering features which would confirm or refute the historical record of the construction of the post, as outlined by Mattison in 1951. The results of the archeological investigations showed that the documentary record did indeed represent an accurate description of the fort and its buildings. In addition, a rich array of artifactual material was recovered. This data was utilized by Carlyle Smith, who wrote an analysis of the cartridges and bullets found at the fort as an appendix to G. Hubert Smith's report (Smith 1960). The paper on Fort Stevenson offers a significant body of information, in terms of construction styles and material culture, for comparative purposes, and provides an insight into the physical remains of a late nineteenth century American military fort on the frontier.

The other article about a historic site behind Garrison Dam published in Bulletin 176 was Alan R. Woolworth and W. Raymond Wood's description of excavations at Kipp's Post (32MN1). This fur trading fort was first built around 1826 and occupied until about 1830, when it was replaced by Fort Union. Unlike Fort Stevenson, very little is known about Kipp's Post from the historic records. The site was first mapped and located by Thad C. Hecker in 1938. In 1951 a Missouri Basin Project party, headed by G. Hubert Smith, carried out test excavations at the site, located the palisade trench, and recovered some artifacts. In 1954 the State Historical Society of North Dakota sponsored more extensive excavations at the site. These excavations revealed the major architectural features at the post, including the palisade, blockhouse, and log cabins (Woolworth and Wood 1960). This excellent report offers comparative data useful to any modern scholars interested in the material culture of the western fur trade.

Another group of River Basin Survey Reports concerning archeological investigations within the Garrison Dam and Reservoir area appeared in the Smithsonian Institution Bureau of American Ethnology Bulletin 185. This bulletin included George Metcalf's (1963a) article on his survey of the Fort Berthold Indian Reservation. It also contained Metcalf's report on the excavations at Star Village (32ME16). This fortified village site was the last used by the Arikara before they joined the Mandan and Hidatsa at Like-a-Fishhook Village. This site was occupied for only a short time around 1862. The site of Star Village was first mapped as "The Large Arikara Village Site" by A. B. Stout in 1908. Excavations at the site were carried out by a Missouri Basin Project team led by Donald D. Hartle in 1951. Because of the small field crew and limited time, it was decided that the excavations would be narrow in scope. The site was mapped, and an attempt was made to excavate a house floor in each quarter of the village, as well as the location of the ceremonial lodge. The relatively small area excavated and the paucity of artifactual remains limited the interpretation of the material remains of this site. It should be compared, according to Metcalf, to the Arikara village at Fort Clark which preceded it and Like-a-Fishhook Village, where the Arikara moved after abandoning Star Village. The impression from both historic records and the remains of this site was that the Arikara were losing their native culture at a rapid rate towards the end of the nineteenth century as Euro-American items became more common, and native handiwork declined. While earthlodge houses were still built, features at Star Village indicate other building styles were in evidence, and changes can be seen in the construction of earthlodge houses when compared to earlier sites, such as Dood site of Philips Ranch (Metcalf 1963b). If more of Star Village could have been excavated, perhaps more would be known about how acculturation affected native lifeways during this time of flux for the Arikara tribe.

In River Basin Surveys Papers, No. 28, which also appears in Bulletin 185, Donald Hartle described a modern dance hall on the Fort Berthold Reservation. The hall, which was used for both ceremonial purposes and civic functions, was built in 1891 and last used in 1946 by the Mandan-Hidatsa "Santee Dancing Society." It was constructed of wooden posts but

showed some similarities to more ancient earthlodges. The site was first recorded by Metcalf in 1950 and in 1952. Hartle mapped, photographed, and described the features of the building. He felt that, although it was of relatively recent origin, the dance hall showed some striking similarities to earlier ceremonial structures. This dance hall was considered to be the last of its kind and, thus, certainly unique (Hartle 1963).

Still another archeological site report to be published as a River Basin Survey Paper in Bulletin 185 was Carl Malouf's article on Crow-Flies-High Village (32MZ1). This was a summer village site occupied by a small band of Hidatsa under the leadership of Crow-Flies-High from about 1870 until 1894. The site had originally been recorded by Kivett in 1947. It was excavated by Malouf in 1952 with a team from the Montana State University, financed by the National Park Service. The excavations revealed the extent of the village, defined a plaza, and located the remains of a single earthlodge ceremonial structure. Other structures appeared to have been log cabins. Several cache pits were excavated, and various artifacts collected. The artifacts were almost entirely of Euro-American manufacture, indicating the amount of acculturation affecting even this isolated band. The artifacts also indicated that the site was most intensely occupied during the 1880s. The limited information obtained through excavation was then augmented by both ethnographic and historical accounts, which gave a clear indication of the organization of the village and its dates of occupation (Malouf 1963). In his use of three different kind of sources, Malouf showed some initiative and helped to fill out the slim archeological record with other data that provided anthropological insights about this site. Crow-Flies-High Village is unusual in that it represented an isolated band, outside the reservation, that attempted to maintain traditional lifeways as long as possible in the face of political and cultural pressure.

One of the last sites to be reported on was Like-a-Fishhook Village and Fort Berthold. This report, written by G. Hubert Smith and published as National Park Service Anthropological Paper No. 2, detailed work at three distinct but adjoining areas: Like-a-Fishhook Village, Fort Berthold I, and Fort Berthold II. Like-a-Fishhook Village was the last

earthlodge village of the combined Mandan, Hidatsa, and Arikara population, occupied from 1845 to the late 1880s. Associated with it was a fur trade post. The first post, known as Fort James and later as Fort Berthold I, was probably built by James Kipp for the Chouteau branch of the American Fur Company around 1845. In 1858 a competing fur trading company built its own fort, originally known as Fort Atkinson, at the village. A raid by Dakotas destroyed the first Fort Berthold in 1862, and the newer post then took the name, being referred to in recent times as Fort Berthold II. In 1864 General Sully stationed a troop of soldiers at Fort Berthold II, and the next year the military built some structures outside the post. With the construction of Fort Stevenson, the military abandoned Fort Berthold, which continued to be operated by traders until the decline of the fur industry caused the post to close in the early 1870s. The Fort was also used by the resident Indian Agent of the U.S. Office of Indian Affairs from 1868 until 1974 when part of the post burned down, and new agency buildings were constructed nearby.

The Smith report represents a synthesis of past work by various teams employed by the State Historical Society of North Dakota, the Smithsonian Institution, and the National Park Service. Before the excavations began, Ray Mattison, Historian for the National Park Service, prepared a historic report of the site. In 1950-1952 the State Historical Society, under a contract with the National Park Service, excavated at Like-a-Fishhook Village, first under Glenn Kleinsasser and later under James H. Howard. In 1952 the Missouri Basin Project had a team, headed by G. Hubert Smith, conduct investigations at Fort Berthold I. In 1954 the State Historical Society and the Missouri Basin Project had a joint party, commanded by Alan Woolworth and Smith, at Like-a-Fishhook Village.

Smith's final publication of this work is very impressive. It breaks the project down into descriptions of the features and artifacts at each of the three areas: the Indian Village, the first trading post, and the second trading post. The author duly noted the physical attributes of each of these areas. His artifact descriptions, however, read more like a shopping list than a scientific analysis of material culture. Smith recognized the special nature of the site where three native tribes and

Euro-Americans coexisted. He makes use of various historic and ethnographic sources to piece together the story of the village. In whole, Smith's report is a remarkable blending of history and archeology which attempts to document the end of an era for these native tribes.

Two other important excavations in the Garrison Dam area, carried out by the Missouri River Basin Project, are virtually unknown to the public because of the lack of published accounts detailing this work. These sites are Rock Village (32ME15) and Nightwalker's Butte (32ML39). Rock Village was first mapped by A. B. Stout in 1905 and described by Will (1924). Marvin Kivett dug some test pits at the site in 1947, and in 1950 G. Ellis Burcaw began to systematically excavate the village. In 1951 Donald D. Hartle took over responsibility for the excavations and wrote up the results as his Ph.D. dissertation in 1960. Nightwalker's Butte was first mentioned as the "Bad Lands Site" in 1924 by Will. Metcalf recorded it during his survey of the Fort Berthold Reservation. Hartle was in charge of the excavation of this site in 1952. However, the results remained unpublished until a recent report was produced under a contract with Interagency Archeological Services by Donald Lehmer, Chris Dill, and W. Raymond Wood (Lehmer et al. 1978). This report attempted to place these sites within the cultural chronology of the Middle Missouri area. According to Lehmer et al., both Rock Village and Nightwalker's Butte can be considered Hidatsa earthlodge villages dating to the late eighteenth century. They were assigned to the Knife River Phase of the Disorganized Coalescent Variant of the Plains Village Tradition of the Middle Missouri Region. Unfortunately, this report, like so many archeological documents, is not generally available to the public. In retrospect, the work of the Missouri Basin Project of the River Basin Surveys was monumental. Between 1946 and 1954 they sponsored two major surveys around the Lake Sakakawea Project Area and conducted seven major excavation projects. Working under tremendous pressure as the dam was built and the reservoir began to fill, with the constraints of the funding from Congress, the achievements of the Missouri Basin Project was indeed impressive. Although not all of the work was systematic or up to modern standards for survey coverage, in total, the River Basin Surveys made a significant contribution to what is currently known about the archeology of the Missouri River Valley. In

fact, even the most recent cultural chronologies for the region are dependent upon the data collected by the Missouri Basin Project. Not only were prehistoric sites investigated, but a significant amount of work was done on historic sites. Excavations at Fort Union, Fort Berthold, Fort Kipp, Fort Lookout, and Fort Pierre represent one of the first efforts to examine western fur trade sites.

The single major problem the Missouri River Basin Project faced was the analysis of the data collected and the publication of reports. Even today some of the work done in the Garrison Reservoir area has yet to be made available to the public. Delays in publishing manuscripts was common. For example, although the excavations at Like-a-Fishhook and Fort Berthold ended in 1954, the final report of the investigations were not published until 1972. The single most important group of publications appeared as a series of River Basin Survey Papers in the Smithsonian Institution Bureau of American Ethnology Bulletins.

4.2.3 Recent Investigations

Since the River Basin Surveys of the 1940s and 1950s, very little work has been done within the Lake Sakakawea Project Area in particular, while a great deal of work has been done around this area in general. The only major inspection on the reservoir itself, after the River Basin Surveys, was conducted by the St. Paul Science Museum in 1964, under a contract with the National Park Service. This survey specifically examined the shoreline of Lake Sakakawea (then referred to as Lake Garrison) searching for any sites exposed by wave action and erosion. The field crew was made up of high school students, and the results of the survey could hardly be considered professional. The survey transects were walked along the beaches, between the 1,820- and 1,850-ft contour marks. In total 45 sites were recorded, described in functional terms as "Probable Workshops," "Probable Camps," "Tipi Rings," and "Unknown." The site locations tended to be in or along small ravines, valleys, or tributaries to the Missouri River. Few diagnostic artifacts were found. In summary the study wrote: "The survey, in conclusion, can state that no important sites are endangered in the area investigated and that no further salvage

operations are required in this area." (St. Paul Museum of Science 1969) This study stands out as totally unacceptable by any modern standards for archeological work. Although the Smithsonian trinomial system was well known and in use at the time, the St. Paul Museum sites have yet to have North Dakota Site Forms filled out or have a Smithsonian number assigned to them.

The increasing importance of cultural resources management, as mandated by recent Federal legislation, has been reflected in the region surrounding Lake Sakakawea by the increasing number of surveys of limited scope which were undertaken in the 1970s and early 1980s. These surveys have usually been associated with energy development projects, highway improvement, construction activities, and the expansion of water diversion facilities related to the Garrison Dam project. Most of these small surveys have been carried out by either the Corps of Engineers, the University of North Dakota, the State Historical Society of North Dakota, or private contractors.

The site file search conducted at the State Historical Society of North Dakota in Bismarck identified 15 reports that detailed surveys of areas near or around the Lake Sakakawea Project Areas. Six of those reports indicated a negative declaration; in other words, no cultural resources were found within the limits of the specific survey boundaries. One of the most significant reports, which included information about cultural resources located near some of the Lake Sakakawea Project Areas, was written by Timothy Weston and Stanley Ahler of the University of North Dakota for the Mercer County Commission in 1979. The Commission wanted to widen county road FAS 2910, which runs just by the southern boundary of Beaver Creek Area and Beulah Bay Area. The survey located 26 isolated finds, 1 historic church foundation, 1 historic school location, 5 historic cemeteries, and 4 prehistoric archeological sites. Test excavations were conducted on all four archeological sites, and historic research was done for the church and school locations. The only site located relatively close to the Lake Sakakawea Project Area was 32ME82, the Neusatz Cemetery, which is situated just south of the Beaver Creek Area boundary (Weston and Ahler 1979).

Another CRM report of some importance was a survey conducted by Powers Elevation Company for Interstate Engineering in 1980. The area to be examined included the Hazen Bay and Beulah Bay roads in Mercer County. Powers Elevation relocated site 32ME57. This prehistoric mound was first recorded in 1950 by George Metcalf. At that time Metcalf noted human bones and pottery eroding from the site. Powers Elevations conducted limited test excavations at the site (Rippeteau 1980).

Two other significant reports are those by Habermen and Schneider (1974) and Leaf (1976). Both of these reports detail shoreline surveys around Lake Sakakawea in Dunn, Mountrail, and McKenzie Counties. In addition to these surveys, the University of North Dakota Archeological Research-West groups undertook a survey of western portions of Lake Sakakawea concurrently with the inventory completed by Science Applications, Inc. (and the subject of this report) of the eastern portions of the lake for the COE.

Most of the other archeological work carried out in the vicinity of the Lake Sakakawea Project Areas was undertaken by archeologists employed by the U.S. Army Corps of Engineers. COE archeologists have conducted a number of limited surveys around Lake Sakakawea, usually to clear areas where specific construction activities will take place. For example, on November 29, 1979, a survey was done to clear a proposed loading ramp to be built for the National Guard. A deteriorated log structure was noted, but it was not deemed significant enough to be recorded as an archeological site (Robson and Good 1979). COE archeologists, including Larry Robson, Carolyn Good, and Virginia Harris, also carried out random surveys of limited extent on COE lands and have recorded a number of archeological sites within and around the Lake Sakakawea Project Areas.

As can be seen, most of the recent archeological work in the region has been limited in extent and narrow in scope. The reports on this work can be found in the files of the North Dakota Historical Society in the form of simple letter reports. The lack of integrated, systematic surveys of COE lands around Lake Sakakawea is one of the motivating factors behind the present inventory effort.

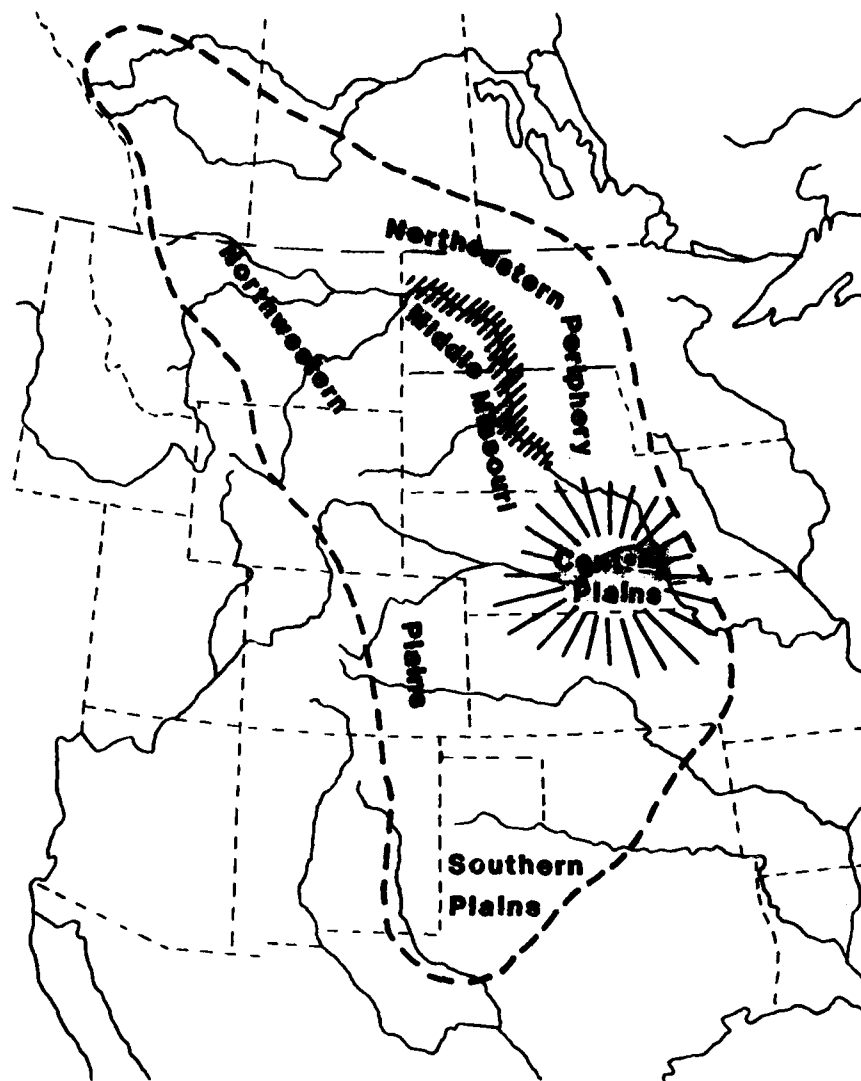
4.3 PREHISTORIC OVERVIEW

Much of the archeological data which has been uncovered in the Missouri River Valley has been integrated into a regional prehistoric cultural chronology by Lehmer (1971). For the most part Lehmer used the information recovered during the River Basin Surveys as the basis for his work. He also borrowed his geographic and cultural classification system from other scholars, such as Waldo Wedel (1961) and Gordon Willey (1966).

Before the River Basin Surveys, the state of the art in Missouri River archeology was summarized by Will and Hecker (1944). Their classification system attempted to separate Arikara, Mandan, and Hidatsa village sites. It was found that, while many archeological traits differ between the Arikara and the Mandan, it was not possible to separate Mandan and Hidatsa on the basis of archeology alone. A more recent study by Lehmer et al. (1978) has shown that it is still not possible to separate Mandan and Hidatsa sites without the use of historical documents. Will and Hecker postulated three stages in Mandan development: Archaic Mandan, Middle Mandan, and Late Heart River phases.

In 1961 Waldo Wedel published his classic synthesis of Great Plains prehistory. He divided the plains into five geographic areas: the Southern Plains, the Central Plains, the Middle Missouri, the Northwestern Plains, and the Northeastern Periphery (Figure 4.2). Wedel's geographic and cultural taxonomy was refined by Gordon Willey (1966), in his general text on North American archeology. Willey presented four major periods of occupation for the plains; Paleo-Indian (to 4000 B.C.), Archaic (4000 B.C. to 0), Woodland (0 to A.D. 1000), and Plains Village (A.D. 1000 to proto-historic c. 1780).

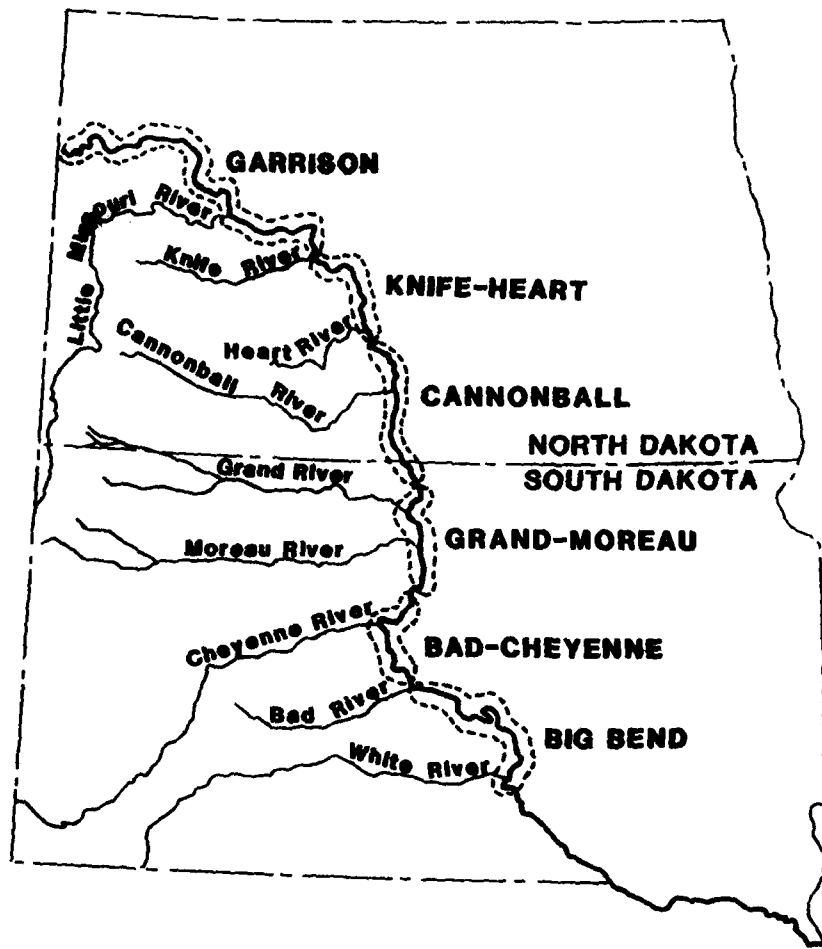
Donald Lehmer (1971), in his seminal study of Missouri River Valley archeology, divided the Middle Missouri area into six geographic regions: The Big Bend, Bad-Cheyenne, Grand-Moreau, Cannonball, Knife-Heart, and Garrison (Figure 4.3). He also modified Willey's cultural/chronological periods. Lehmer traced the Paleo-Indian period to about 6000 B.C. From 6000 B.C. to 500 B.C., Lehmer identified the Foraging



LAKE SAKAKAWEA INVENTORY
NORTH AMERICAN PLAINS
Figure 4.2

Adapted from Wedel 1961: Figure 21

sil



0 60 miles



LAKE SAKAKAWEA INVENTORY
MIDDLE MISSOURI GEOGRAPHIC
REGIONS
Figure 4.3

Adapted from Lehmer 1971: 29

SL

Period in place of Willey's Archaic. This was followed by the Woodland period, lasting from 500 B.C. to A.D. 900. From A.D. 900 to 1780, Lehmer adopted Willey's Plains Village period classification. But, following this, he added an Equestrian period, to cover the cultural changes caused by contact with Euro-Americans and the development of horse nomad traditions within native plains groups, which lasted to the late nineteenth century.

Furthermore, Lehmer presented three cultural traditions within the Plains Village period: The Central Plains, Middle Missouri, and Coalescent. Within these traditions Lehmer introduced the concept of variants. For the Middle Missouri Tradition, there were Initial, Extended, and Terminal variants. During the Coalescent, Lehmer listed the Initial, Extended, Post-Contact, and Disorganized variants. Within the various variant traditions, Lehmer also promoted the concept of phases. Thus within the Disorganized Variant of the Coalescent Tradition is the Knife River Phase (Lehmer 1971).

The prehistoric cultural chronology below uses Willey's cultural periods and Lehmer's concept of traditions and variants.

4.3.1 The Paleo-Indian Period

The Paleo-Indian period is the earliest cultural/chronological division for the Middle Missouri. It is generally accepted by most scholars as an expression of the Big Game Hunting Tradition as outlined by Willey (1966). This tradition is represented elsewhere on the plains by large fluted points, such as those associated with the Clovis and Folsom complexes. Within the Middle Missouri region, only a few Paleo-Indian finds have been discovered. Lehmer (1971) believed the geologic history of the Missouri River Valley explains this loss, for the valley cutting activities of the last glacial recessions could have erased any evidence of early postglacial occupations. Wedel (1961) stated that discoveries of Paleo point types at sites both west and east of the Missouri Valley indicated that this region was surely occupied at that time. Continued research has confirmed these contentions. Paleo-Indian artifacts have been recovered from several recently investigated sites. These include

the Moe site (32MN101) (Schneider 1975), the Walth Bay site (Ahler et al. 1974), and the Travis 2 site (Ahler et al. 1977). These sites were located in the context of buried terraces. Other sites yielding evidences of Paleo-Indian occupations may come to light as more buried terraces are explored.

4.3.2 The Archaic Period

What Willey termed the Archaic Period is described by Lehmer as the Foraging Period, lasting from 6000 B.C. to 500 B.C. The Signal Butte site in Nebraska, radiocarbon dated to 1500-1000 B.C., represents an Archaic Tradition in the Central Plains and indicated the utilization of big game animals in the area. However, in general this period is considered a transition from a primary reliance on big game hunting to a more diverse subsistence pattern of hunting and gathering. Thus Archaic sites evidence cruder, smaller projectile points, more grinding slabs, and more hearths than Paleo-Indian sites (Willey 1966).

Sites from the Archaic Period are poorly represented in the archeological record of the Middle Missouri region. Elsewhere on the plains, such as Wyoming, this period is represented by the McKean point type. A number of sites in the vicinity of the Big Bend of the Missouri River in South Dakota have yielded McKean and Duncan points. Radiocarbon dates from these sites range from 2450 ± 250 B.C. to 525 ± 150 B.C. (Lehmer 1971), Wedel (1961) also emphasized that Archaic sites in the Middle Missouri region were rare, and stated that while some non-pottery sites have been found, not all non-pottery sites come from the pre-pottery Archaic Period. Near the Lake Sakakawea Project Area one site, Rock Village, which was excavated by Donald Hartle in 1952, had a deeply buried cultural level which lacked pottery remains and may date back as far as the Archaic Period.

4.3.3 The Plains Woodland Period

Lehmer (1971) dated the Plains Woodland Period in the Middle Missouri region from 500 B.C. to A.D. 900. This period is closely related to the

Woodland cultures of the eastern United States. The majority of sites are found in small stream valleys, and the culture was probably oriented towards the exploitation of resources in the wooded bottom lands, which are similar to the more forested portions of the east. Cultivated crops, as well as hunting, probably were part of the subsistence pattern of these Woodland peoples. Hopewellian sites are in evidence near Kansas City, and other Woodland cultures on the Central Plains include the Stern's Creek and Loseke Creek phases in the Missouri River Valley in Nebraska (Willey 1966).

Both Lehmer (1971) and Wedel (1961) mention Scalp Creek and Ellis Creek in the Fort Randall Reservoir area of South Dakota as Woodland sites in the Middle Missouri region which have been excavated and the findings published. Associated artifacts included stemmed projectile points, chip-ped stone drills, crude percussion flaked axes, pecked and ground celts, bone awls, scrapers, and shell beads. Other Woodland sites in the Middle Missouri area included scapula hoes. The radiocarbon dates from Woodland sites in this region extend from 430 ± 150 B.C. to A.D. 750 ± 90 (Lehmer 1971).

The most distinctive aspect of the Woodland period is the first appearance of pottery. In the Missouri Valley of the Dakotas a thick cord-roughened Woodland pottery is the earliest type found (Willey 1966). Burial mounds are another feature of Woodland occupation. The mounds in the Middle Missouri region tend to be less numerous and smaller than in the east. Lehmer (1971) mentioned a number of linear mounds in the vicinity of the Knife River. One mound (32ME57) was recorded near the project area by George Metcalf in 1950.

4.3.4 The Plains Village Period

The Plains Village Period begins around A.D. 1000 and is associated with the florescence of agriculture and the establishment of permanent village sites. This period is marked by more stable occupancy as inferred from village site remains and the increasing diversity of material culture. Pottery, for example, is more plentiful than in Woodland times,

and shows similarities with the Mississippian cultures of the east (Willey 1966). There is evidence of both hunting and crop cultivation, and in this period the scapula hoe reached its maximum development in the Middle Missouri (Lehmer 1971). The single most distinctive feature is the house form, which characteristically was long and rectangular shaped, with a sunken floor (Wedel 1961).

Lehmer (1971) defined three traditions which influenced the development of the Middle Missouri region during the Plains Village period. The first was the Central Plains Tradition, which is not directly represented by any sites in the Middle Missouri area. Instead this tradition can be found in Nebraska, represented by the Upper Republican, Nebraska, and Smoky Hill phases. However, Spaulding (1956) recognized the influence of the Central Plains Tradition on Middle Missouri sites when he dug at Arzberger. He associated strong cultural affinities of Upper Republican aspects with both protohistoric Pawnee development in Nebraska and the evolution of ancestral Arikara groups in the Dakotas. But Spaulding also recognized a second cultural association at Arzberger called the Mill Creek-Mandan Tradition, which should be considered separately from the Central Plains Tradition, as it was rooted in cultures from Minnesota and Iowa.

Lehmer's second tradition in the Plains Period he called the Middle Missouri Tradition, lasting from about A.D. 900 to A.D. 1675, and including three variants: the Initial, Extended, and Terminal periods. Using radiocarbon dates from 19 sites, Lehmer showed that most of the Initial Middle Missouri Variant sites fell within the period A.D. 950-1300. Geographically the Initial Middle Missouri sites are located almost entirely in South Dakota, between the Chamberlain and the Cheyenne River. Lehmer suggested that the geographic distribution of the Initial Middle Missouri Variant sites indicated that these people migrated to the Dakotas from Minnesota and northwestern Iowa.

The Extended Middle Missouri Variant sites have a more northerly distribution. This culture appeared to have developed in North Dakota, and sites in the Bad-Cheyenne region represent its southernmost extension. These sites may be related to Will and Hecker's (1944) distinction for

Archaic Mandan. Lehmer (1971) believes that there were two stages of occupation in Extended Middle Missouri sites, the earliest lasting from A.D. 1100-1250 and the later occupation dating from A.D. 1450 to 1550.

Since the Initial Middle Missouri and Extended Middle Missouri periods overlap, it was Lehmer's opinion that some conflict took place between the populations. Fortifications appear at some sites. It should be made clear, however, that the two groups were probably closely related, as there is evidence of diffusion of some cultural traits. Both variants had houses of similar design, tending to be long rectangular structures with sunken floors. Initial Middle Missouri and southern Extended Middle Missouri villages tended to contain between 20-30 houses, while northern Extended Middle Missouri villages consisted of only a dozen or so. The Extended Middle Missouri people appear to have borrowed the idea of having entrance ramps inside their homes from the Initial Missouri group, while the Initial Middle Missouri population adopted simple stamping and the flared S-rims on their pottery from the Extended Middle Missouri culture (Lehmer 1971).

In terms of the Lake Sakakawea Project Area itself, one site, Grandmother's Lodge (32ME59), which is now under the waters of the reservoir, appeared to date to the Extended Middle Missouri Variant period.

Lehmer's next stage of development was termed the Initial Coalescent Variant and dated from A.D. 1400 to 1500. This cultural tradition is found in the Big Bend region, and is best represented by the Arzberger site. Houses of the Initial Coalescent show a similarity to the Central Plains Tradition, while they contrast with Middle Missouri Variant types. Sites like Arzberger, however, have elaborate fortifications, unlike Central Plains Tradition villages, indicating that perhaps warfare took place between the Initial Coalescent people and the Middle Missouri population. Pottery from Initial Coalescent sites also show the influence of Middle Missouri attributes, although in vessel form and decoration it strongly resembles Upper Republican wares. Lehmer (1971) postulated that an actual population influx from the Central Plains to the Missouri River Valley took place during this period due to a drought.

The next phase, which Lehmer referred to as the Extended Coalescent Variant, lasted from about A.D. 1550 to 1675 and is represented by over 100 sites along the Missouri River in South Dakota. The ideal house form during the Extended Coalescent Variant was circular structure having a central firepit, four primary support posts, and an enclosed entrance passage (Lehmer 1971:115). The pottery from Extended Coalescent sites is also easily distinguished from Middle Missouri Variant types. Lehmer (1971) feels the Extended Coalescent culture is a direct outgrowth of the Initial Coalescent Variant. There can be little doubt that these traditions were ancestral to the development of both the Pawnee and Arikara.

Coexisting with the Extended Coalescent Variant was a culture that Lehmer described as the Terminal Middle Missouri Variant Tradition. The Terminal Middle Missouri corresponds roughly with Will and Hecker's (1944) description of Middle Mandan sites. Terminal Middle Missouri sites extended northward from the Grand River in South Dakota to the Cannonball and Knife-Heart subregions. This period is probably best exemplified by the Huff site (32M011), which has been radiocarbon dated from A.D. 1550 to 1675.

Lehmer (1971) believed that between A.D. 1400 and 1675 Coalescent peoples moved into the Middle Missouri region from the Central Plains which led to a withdrawal of Middle Missouri population northward. Distinctions between Extended Coalescent sites and Terminal Middle Missouri sites include pottery styles, house types, village size, the presence of fortifications, and geographic locations. The most striking difference between the two groups was their settlement patterns. The Terminal Middle Missouri population was concentrated in a few large, well fortified centers which were occupied for substantial periods of time, while the Extended Coalescent villages consisted of scattered house clusters, minimally fortified, and occupied for relatively short periods. Of course, cultural borrowing is also in evidence. The Coalescent house form passed north to the Terminal Middle Missouri where it was adopted by the end of the seventeenth century. The shallow S-rims on Terminal Middle Missouri pottery also seems to have been borrowed from their southern neighbors. On the other hand, the Coalescent groups adopted the concept of cord-

impressions on their pottery and the use of the distinctive L-shaped antler fleshing adze from the Middle Missouri Variant Tradition.

4.3.5 The Late Village Cultures

After A.D. 1675 the influence of European settlement in North America began to make itself felt in the Middle Missouri region. The horse, the gun, and European-manufactured items began to appear on the northern plains as a result of trade. Through diffusion the influence of European material culture preceded the actual settlement of the region by Euro-Americans by almost two centuries. The result was the development of a hybrid native culture incorporating Middle Missouri and Coalescent traditions with European attributes. Lehmer identified this time as the Equestrian Period for the movement of horse nomad tribes on the plains affected the Missouri River Valley tribes. This time is also known as the proto-historic or ethnohistoric period because of the existence of historic accounts of native tribes in the region which date back to the end of the eighteenth century.

Lehmer (1971) makes a distinction between the kind of sites occupied after contact with Euro-Americans. The earliest period was termed the Post-Contact Coalescent Variant, while the later period was called the Disorganized Coalescent Variant. The Post-Contact Variant is dated from A.D. 1675 to 1780. Throughout most of this period sites clustered in two main geographic regions: a southern group between the White and Grand Rivers in South Dakota and a northern cluster in the Knife-Heart subregion of North Dakota. This northern group basically corresponds to Will and Hecker's (1944) Later Heart River Cultural Period. Post-Contact Coalescent houses were almost always circular with a fireplace in the center. Pottery from Post-Contact Coalescent sites resemble Middle Missouri Variant forms more than they do where found at Extended Coalescent villages. Of course the most notable trait at Post-Contact Coalescent sites was the presence of European goods and the impact their introduction had on native industries. Because of the existence of historic accounts dating back to this period, archeological sites of the Post-Contact Coalescent Variant Tradition can be assigned to known tribes. The southern group is almost

certainly Arikara. The sites in the Knife-Heart subregion were either Mandan or Hidatsa. The Arikara can trace their evolution back to the Coalescent and ultimately the Central Plains Tradition. The Mandan and the Hidatsa, on the other hand, appear to have developed out of the Terminal Middle Missouri Variant Tradition.

Direct contact with Euro-American traders and adventurers had a disastrous impact on the Middle Missouri tribes. After the smallpox epidemic of 1780 the Mandan abandoned their villages in the Heart River region and joined the Hidatsa at the mouth of the Knife River. The Arikara banded together at two villages just below the mouth of the Cheyenne. Lehmer (1971) called this period of transition and consolidation the Disorganized Coalescent Variant. The Arikara continued to move north, first establishing towns around the Grand River, then about 1838 taking over the abandoned Mandan village at Fort Clark. In 1837 another smallpox epidemic struck, and shortly thereafter the Mandan and Hidatsa moved to the Lake Sakakawea area where they established Like-a-Fishhook Village. The Arikara soon followed, spending time at Star Village before joining the Mandan and Hidatsa at Like-a-Fishhook Village around 1862. Like-a-Fishhook Village represented the last phase of independent village life for these tribes, before the reservation system and U.S. Government policy caused it to be abandoned in the 1880s.

Near the Lake Sakakawea Project Areas, under the waters of the reservoir, are several village sites which Lehmer classified as Disorganized Coalescent. This includes Rock Village and Nightwalker's Butte. These two sites appear to have been Hidatsa villages occupied in the late eighteenth century. Lehmer included them as part of the Knife River Phase of the Disorganized Coalescent Tradition (Lehmer et al. 1978).

4.4 HISTORIC OVERVIEW

In the historical literature the Middle Missouri region is more commonly referred to as the "Upper Missouri." Since prehistoric times the Missouri River has served as the principal transportation route to the northern plains. It was utilized by native tribes, fur traders,

travelers, gold seekers, soldiers, and settlers as the major highway to the west. Here the fur trade flourished for almost a century, as the Middle Missouri tribes presented a valued resource base for commerce which a succession of French, British, Spanish, and American traders came to exploit. By the time the fur trade on the Upper Missouri began to decline the U.S. military became active in the area, as the hostility of the Sioux and other plains nomad tribes caused disruption of transportation and threatened the more settled tribes along the Missouri River. Military forts were established and the Indians placed on reservations. Steamboat traffic up the Missouri, beginning during the fur trade era and continuing with the gold rush to Montana, stimulated Euro-American settlement in the region as woodyards and supply towns were established. With the extension of the railroads through North Dakota in the 1880s many of the river towns declined, but new communities were founded along the railroad lines to act as commercial centers and storage depots for the blossoming agricultural produce of the area. By the beginning of the twentieth century the region around what is now Lake Sakakawea was basically rural agricultural land, worked as farms or ranches by either the Indians on the Fort Berthold Reservation or people of Euro-American descent who had migrated to this newly opened country.

4.4.1 Early Exploration and the Fur Trade

The early exploration of the Lake Sakakawea region by Euro-Americans was motivated by the search for new markets for the fur trade. What is usually referred to as Louisiana, including the Dakotas, was once part of France's New World empire. During the eighteenth century the fur trade played an important part in the expansion of New France westward. In 1727 Pierre Gaultier de Varennes, the Sieur de la Verendrye, was appointed commander of the Posts of the North, a string of forts stretching west from Lake Superior, established to challenge English fur traders and serve as bases for the penetration of the interior of North America. From the Crees La Verendrye heard of a sedentary group of tribes living along the Missouri River. To discover information about the legendary River of the West, the supposed route to the mythical Western Sea, which would provide a shortcut through the continent to the Pacific, and thus the Orient,

La Verendrye planned an expedition to establish trading relations with the Missouri River tribes.

From Michilmackinac, La Verendrye traveled to Fort St. Charles on the Lake of the Woods in present-day Manitoba, then to the Assiniboine River where he erected Fort La Reine in October 1738. From there he set out with a party of 52 persons, including two of his sons, 20 engages, and Indian allies. Built by Assiniboine Indians, La Verendrye reached the villages of a tribe he called "Mantannes," identified by most scholars as Mandan, in December 1738. These villages were thought to have been within the Heart River region (Smith 1980). La Verendrye described one village as having 130 dwellings, with clean open spaces and streets. It was surrounded by a palisade and ditch. Of the Mandan he wrote, "This nation is of mixed blood, white and black." They wore little clothing, except buffalo robes on the men and antelope skin skirts on the women. Their belongings were stored in caches within the village. La Verendrye noted the skill of their wickerwork and their pottery. He also described how the Mandan bested the Assiniboine in trade, exchanging their corn, tobacco, and buffalo hides for European goods such as muskets, axes, kettles, knives, and awls which the Assiniboine acquired from the French.

The Mandan told La Verendrye of the Arikara and Pawnee to the south and of the Spanish, by that time established in New Mexico, who they probably knew of through trade with the plains tribes. Having become ill, La Verendrye left two of his men with the Mandan to learn their language and returned with the rest of his company to Canada. In concluding his discussion of the trip, La Verendrye implied that the Missouri River was the mysterious River of the West. He was disappointed, however, at the prospects of Procuring beaver pelts from the plains tribes and those along the Missouri River.

Not satisfied with the results of his first expedition, La Verendrye made preparations for another trip to the Mandan. This journey was led by his two sons, Francois and Louis-Joseph, accompanied by two engages. They left Fort La Reine in April 1742 and reached the Mandan villages in May. Still determined to find a route to the South Sea, the two brothers left

the Missouri River with Mandan guides and headed southwest, where some scholars believe they traveled as far as the Big Horn Mountains before returning to Canada (Smith 1980).

Although the South Sea was never found, the expeditions of the Verendryes opened a whole new region to French Canadian traders. In 1763 the Peace of Paris ending the Seven Year War between France and England divided up France's New World possessions. Britain acquired Canada while Louisiana was turned over to Spain. Despite the fact that Louisiana was now Spanish territory, British trading companies in Canada sought to exploit the Middle Missouri market. Following the footsteps of the Verendryes, both the Hudson's Bay Company and the North West Company turned southward and succeeded in pursuing trading relations with the Mandan.

Two main routes were used by the Canadians to reach the Missouri, one from Pembina and the other from Fort Esperance and the La Souris River Fort. For example, James McKay, a Scotsman working for a British trading company, reached the Mandan in 1787 from Fort Esperance. Alexander Henry wrote in 1806 that Rene Jusseaume, an employee of the North West Company, had resided with the Mandan for 15 years. The North West trader McDonnell, who ran the Assiniboine post, recorded on December 10, 1893 the return of nine men from the Missouri. And on May 21, 1795 McDonnell wrote, "Jussome [sic] and the Mandan men arrived here with their returns." (Coues 1897). When D'Eglise reached the Mandan villages in 1791 he was shocked to find a French Canadian trader, Menard, who had been there for 14 years (Nasitir 1952). Thus it is apparent that the Canadian traders had established themselves as a major factor on the Upper Missouri by the 1780s.

One of the first British traders to leave an account of his visit to the Mandan villages was the explorer, trader with the North West Company, and geographer, David Thompson. He left McDonnell's Assiniboine post on November 28, 1798 and reached the Mandan on December 29th. There he noted five villages. According to Coues, Thompson recorded the size of the villages as follows: "Upper Fall Indians 31 houses, 7 tents; Lower Fall Indians 82 houses; third village Mahnon of Mandans and a few Fall Indians,

52 houses, 37 Mandan and 15 Fall; fourth village Mandan, across the river, 40 houses; fifth or principal Mandan village, lowest, 113 houses." Thompson returned to McDonnell's on February 3, 1798 (Coues 1897).

It appears that Thompson was describing the situation at the mouth of the Knife River. The "Fall Indians" would be the Hidatsa, referred to by the early traders as either Gros Ventre or "Big Bellies," and Minatarees. The "Upper Fall" village is located on the north bank of the Knife River and is currently referred to as Big Hadatsa Village, which forms the major part of the Knife River Indian Villages National Historic Site operated today by the National Park Service. "Lower Fall" village could be the site now called Sakakawea Village or nearby "Lower Hidatsa" Village. The third village, occupied by "Mahnon," is probably Amahami Village where the town of Stanton now stands. The fourth village, occupied by Mandan "across the river" on the east side of the Missouri, is probably Black Cat's Village, as later described by Lewis and Clark in 1804 and Alexander Henry in 1806. The fifth, the largest of the Mandan villages, may be what is today referred to as the Deapolis site (Lehmer et al. 1978).

It seems apparent from the historical literature that the Mandan had removed themselves from the Heart River region to live near the Hidatsa at the mouth of the Knife River around 1780. According to Meyer (1977) the British trader, Mackintosh, visited the Mandan in 1773 and reported that they lived in nine villages around the Heart River. When James MacKay reached the Mandan in 1787 he found them at five villages near the mouth of the Knife River. This move may be related to the smallpox epidemic of 1780. The story of this relocation was recounted by Henry in 1806 (Coues 1897).

The Spanish were highly disturbed by British movements along the Upper Missouri. This activity forced the Spanish to initiate their own explorations northward out of St. Louis. In August 1790 Jacques D'Eglise obtained a license to hunt on the Missouri, and he became the first Spanish subject to reach the Mandan villages from St. Louis. D'Eglise told Zenon Trudeau, the lieutenant governor of Spanish Illinois that he found the Mandan residing in eight villages about 800 leagues up the

Missouri River. Their total population was estimated at between 4,000 and 5,000 people. "They are white like Europeans," Trudeau was told, "much more civilized than any other Indians, and always live in tribes fortified against the numerous nations of the Cuis (Sioux) with whom they are perpetually at war." D'Eglise, as the Verendryes had noted before, found evidence of the Mandan communicating with the Spanish in New Mexico. He also noted the quality of their furs (Nasitar 1952).

In 1793 a group of St. Louis merchants formed the "Company of Explorers of the Upper Missouri," better known as the Missouri Company. The object of the company was to grasp control of the Indian trade out of the hands of the Canadians. In June 1794 the Missouri Company sent Jean Baptiste Truteau as an agent to the Mandan. Truteau, however, only got as far as the Arikara villages near the Grand River in South Dakota. James McKay, who had once visited the Mandan while working for a British trading company out of Canada, was chosen to replace Truteau as the manager of the Missouri Company in 1795. McKay sent John Evans, a Welshman, ahead to the Mandan villages, where he arrived in September 1796. Evans took possession of the British post there, probably erected by Rene Jusseaume in 1794. He found that Jusseaume, representing the North West Company, and Baptiste La France of Hudson's Bay Company were still active in trading at the villages (Nasitar 1952).

The Missouri Company continued its own activities on the Upper Missouri, under the leadership of the St. Louis firm of Clamorgan, Loisel, and Company. Regis Loisel employed Pierre-Antoine Tabeau as his emissary to the Arikara, where Lewis and Clark met him in 1804. The picture Tabeau painted of the Arikara was of a tribe constantly beset by the pressures of a harsh environment and fear of the Sioux. Their corn harvests often failed, and they were constantly moving, having been reduced from a population of eighteen villages to three.

The fate of the Upper Missouri fur trade took yet another turn in 1803 when political control over Louisiana was transferred from France, who had recently reacquired it from Spain, to the United States. President Thomas Jefferson was personally interested in sending an American

expedition up the Missouri River to determine the geography of the region, find a route to the Pacific Ocean, and make contact with the various interior tribes as the basis for expanding the fur trade westward. This expedition, led by William Clark and Meriwether Lewis, left St. Louis and reached the Mandan villages in the vicinity of the Knife River on October 26, 1804. They found five villages in the area, just as David Thompson had described in 1798. Going upstream the first Mandan village was on the west bank of the Missouri. Its chief was Big White. Next they came to a second Mandan village, whose chief was Black Cat, on the east bank of the river. The third village, at the mouth of the Knife River, is commonly called Amahami, written as "Ah wah har way," by Clark. Further up the Knife River were the two Hidatsa villages, known today as Sakakawea Village and Big Hidatsa Village.

At the Mandan village Lewis and Clark met Rene Jusseaume, who they employed as an interpreter. At Sakakawea Village they met Touissant Charbonneau, the Canadian trader and former employee of the North West Company, who not only acted as translator with the Hidatsa, but also joined Lewis and Clark to act as their guide. His wife, Sacajawea, was to play an important part in the successful completion of their journey to the Pacific. Also appearing at this time were the North West traders, Francois Antoine Larocque and Charles MacKenzie. To compete with them the Hudson's Bay Company had sent a man named Henderson, who stayed with the Hidatsa. Lewis and Clark tried to impress upon the British that this was now American territory, and to secure the trust of the Mandan they presented gifts such as metals, flags, and clothing.

Lewis and Clark built a winter post, called Fort Mandan, near the Mandan villages and stayed until the ice on the Missouri River melted in April 1805. During their stay they learned much about the village Indians. The Mandan claimed they came from a land of lakes and moved to the Missouri River, below the Knife. Smallpox and war with the Sioux reduced their number, and they moved higher up the Missouri River where they lived with the Arikara for a time. After fighting with the Arikara they moved a third time to their present location near the Hidatsa. Linguistically, Clark noted that the Mandan and Sioux were related. The

Hidatsa, however, were related to the Crow tribe. They were constantly at war with the Sioux and the Shoshone. Clark estimated the Mandan could raise an army of about 350 men; the Amahami, about 80; and the Hidatsa, 600-650. Much of what they discovered about the journey ahead was learned from the Hidatsa, who had traveled to the west on their war parties.

Moving further up the river, in the vicinity of what is now Lake Sakakawea, Clark wrote of the scenery on April 9, 1805:

I saw a Musquetor to day great numbers of Brant flying up the river, the Maple & Elm has buded & cotton and arrow wood beginning to bud. But a fiew resident birds or water fowls which I have Seen as yet Saw Great numbers of Gees feedin in the Praries on the young grass, I saw flowers in the praries to day, juniper grows on the Sides of the hills & runs on the ground (De Voto 1953).

The next day Lewis and Clark met up with a party of French fur trappers. Lewis noted that "the beaver these people have already taken is by far the best I have seen." Mattison estimated that they camped in the vicinity of the NW $\frac{1}{4}$ of Section 33, Township 147N., Range 89W., near Beaver Creek (Mattison 1951a).

When they returned from the Pacific Coast, Lewis and Clark again traveled through the Lake Sakakawea region on their way down the Missouri River. On August 13, 1806, Clark wrote that they traveled 85 miles, assisted by a strong current and wind, passed by the Little Missouri River, and camped near the mouth of "Miry" or Snake Creek. Mattison (1951a) estimated that this camp was located in Section 17, Township 147N., Range 89W.

Although Louisiana now belonged to the United States, British traders remained active on the Upper Missouri. In July 1806, Alexander Henry of the North West Company recorded a trip from the Pembina post to the Mandan. He reached the Missouri River in the vicinity of Snake Creek and,

near the Lake Sakakawea Project Area, he observed a winter village utilized by the Hidatsa. "The water was so high," he wrote, "that the huts appeared almost overflowed. Near this place are great quantities of fruit, all perfectly ripe - pears, chokcherries, red cherries, raspberries, and gooseberries." Of the surrounding countryside Henry noted:

....Having passed this place we proceed over a rough country for a few miles to a high, steep bank, which our horses could hardly climb.... Here we had a delightful and extensive prospect of the river in both directions. It borders are well lined with wood of various kinds. The valley through which the river courses is about two miles wide, confined on both sides by stupendous banks, on which nothing grows by a short grass (Coues 1897).

Henry found the five villages of the Hidatsa and Mandan on the Knife River much as Lewis and Clark had described them. He pointed out that the Big Hidatsa Village had once contained 900 houses, but its population had been reduced by smallpox. Because of the lack of wood in this area the Hidatsa used a winter camp in the vicinity of modern Lake Sakakawea. Henry also observed that Jean Baptiste La France of the Hudson Bay Company was trading with the Mandan. In competition was Rene Jusseaume who lived with the Mandan, and Charles McKenzie and James Caldwell of the North West Company who were trading with the Hidatsa. According to Coues (1897) the British continued to trade with the Mandan until 1808.

American traders based in St. Louis did not allow the British to monopolize the Upper Missouri fur market, for no sooner had Lewis and Clark returned from their journey than St. Louis merchants followed their footsteps up the Missouri River. Manuel Lisa headed a party, including John Colter of the Lewis and Clark expedition, which went up the Missouri River in 1807 as far as the Big Horn River, where Lisa had a fort built. The following year, after his return, Lisa was instrumental in founding the Missouri Fur Company of St. Louis. In 1809 this company established a post among the Hidatsa and Mandan. According to Chittenden (1954) this post, referred to as Lisa's Fort, was built near Emanuel Creek and Emanuel

Rock, in the vicinity of the Lake Sakakawea Project Area. It was abandoned during the War of 1812. After the war Lisa again assumed control over the Upper Missouri trade. With Lisa's death in 1820 the Missouri Fur Company was managed by Joshua Pilcher. Chittenden (1954) claimed that Pilcher reoccupied the post by Emanuel Creek around 1822 or 1823 and renamed it Fort Vanderburgh. Pilcher could not successfully penetrate the Three Forks region of the Missouri and the Missouri Fur Company, unable to compete with more ambitious firms who entered the fur trade at this time, faded from existence by the end of the 1820s.

One of the most important firms to displace the Missouri Fur Company on the Upper Missouri was the Western Department of the American Fur Company, originally financed by John Jacob Astor, but operated out of St. Louis by the Chouteau family. In competition with it was the Columbia Fur Company, founded by a couple of former North West Company traders, including Kenneth McKenzie. The firm was also known as Tilton and Company. In 1823 James Kipp built a post at the Mandan villages on the west side of the Missouri River (Abel 1932). In the winter of 1825 Kipp went up the Missouri to the mouth of the White Earth River where he built the fur trade fort best known as Kipp's Post. In 1827 the Columbia Fur Company was merged into the American Fur Company, and in 1830 McKenzie supervised the construction of a new post for the Mandan trade, near the Knife River villages, to be known as Fort Clark (Chittenden 1954, Abel 1932). Around 1828 the American Fur Company built Fort Union at the mouth of the Yellowstone, and this post, along with Fort Clark, became the center of its Upper Missouri River trade empire. The American Fur Company was to dominate the Upper Missouri market until the era of the Indian trade came to an end around 1865. This story is best told by Sunder (1965).

At the beginning of the American fur trade the Hidatsa and Mandan villages were located near the Knife River, although it seems clear that the Hidatsa utilized the region around Lake Sakakawea as a winter camping and hunting area. The Arikara had been reduced by smallpox to two villages on the west bank of the Missouri near the mouth of the Cheyenne River in South Dakota by 1795. For a brief period after this they moved

upstream and lived near the Mandan. By the time of Lewis and Clark, however, in 1804 the Mandan and the Arikara had quarreled and the Arikara had established themselves in three villages at the mouth of the Grand River (Denig 1961). There the fur traders from St. Louis found them a constant obstacle.

When Lewis and Clark had returned to St. Louis, they brought with them the Mandan Chief, Shahaka, better known as Gros Blanc or Big White, whom they escorted to Washington. In 1807 a party led by Nathaniel Pryor, a former member of the Lewis and Clark expedition, and including the interpreter and trader, Rene Jesseume, tried to return Big White to his people. The hostility of the Arikara, however, turned them back. In 1809 the Mandan chief was finally returned to his tribe by Manuel Lisa and the Missouri Fur Company, under a contract with the U.S. Government. But the Arikara continued to harass traders on the river. Perhaps the most famous incident was the attack upon a group of trappers led by William Ashley, heading up the Missouri in 1823. When Benjamin O'Fallon, Indian Agent stationed at Council Bluff, heard of the attack, he sent Colonel Henry Leavenworth with a detachment of U.S. soldiers to deal with the Arikara. Leavenworth was hardly able to impress the Indians with the might of the U.S. military and was harshly criticized by the fur traders for the way he handled the affair (see Chittenden 1954).

The result of the Leavenworth campaign against the Arikara was that they abandoned their villages around the Grand River. Although it is difficult to trace their movements after 1823, Captain Ford, who kept a diary of Colonel Henry Dodge's expedition to the Rocky Mountains in 1835, reported that the Arikara had become a nomadic tribe with no fixed villages, living in tents and hunting buffalo on the plains between the Platte River and the Upper Missouri (Ewer's notes in Denig 1961). In 1838 the Arikara returned to the Missouri River, moving in with the Mandan and Hidatsa at the Knife River villages.

The most disastrous effect of constant contact with Euro-Americans because of the fur trade was the spread of alien disease. In July 1837, the Indians in the vicinity of Fort Clark were hit by smallpox, supposedly

introduced on the Upper Missouri by the American Fur Company steamer, the St. Peter. The Mandan were to suffer the most, but the Hidatsa and Arikara also were hurt by the epidemic. What few Mandan survived abandoned their village and moved in with the Hidatsa. The Hidatsa soon left the Knife River villages and moved north to the Lake Sakakawea region, and the Mandan later followed. The Arikara at this time, around 1838, reoccupied the abandoned Mandan village near Fort Clark.

In 1845 the Hidatsa built Like-a-Fishhook Village. That same year James Kipp of the American Fur Company erected a post he called Fort James, which was soon renamed Fort Berthold, at Like-a-Fishhook Village. For a short time the Mandan resided a few miles above Fort Clark. By 1857, however, the Mandan had joined the Hidatsa at Like-a-Fishhook Village for mutual protection against their enemies, the Sioux. Around 1851 a firm, known variously as Harvey, Primeau, and Company or the St. Louis Fur Company, built a fort on the southeastern side of the village. This post was abandoned for a time, then reoccupied around 1858 by a new firm, founded by Charles Primeau and Malcolm Clarke. This company built a new post because the old buildings were dilapidated, which they called Fort Atkinson (Boller 1972). In 1860 the American Fur Company absorbed the opposition firm of Clarke and Primeau. They then abandoned the original Fort Berthold and moved into Fort Atkinson, which was thereafter renamed as the new Fort Berthold. The older post was burned during a Sioux raid in December 1862.

In 1861 Fort Clark was also destroyed by fire (Abel 1932). The Arikara then left their village near the Knife River and moved opposite Like-a-Fishhook Village, where they established Star Village. In the summer of 1862 the Arikara were attacked by the Sioux. To protect themselves they then joined the Hidatsa and Mandan at Like-a-Fishhook, building their lodges at the north end of the village over the old site of the first Fort Berthold. This was the beginning of the merger of what is now referred to as the Three Affiliated Tribes. The U.S. Government formally recognized this association when they created the Fort Berthold Reservation in 1870 for the combined use of the Mandan, Hidatsa, and Arikara.

4.4.2 The Military and Reservation Frontier

Descriptions of life at Like-a-Fishhook Village can be found in a number of sources (Culbertson 1952; Morgan 1871; and Matthews 1877) but is perhaps best summarized in Smith (1972). The 1860s were a difficult time for the three tribes as a growing reliance on the fur traders and Euro-American goods resulted in the loss of their own cultural identities. Famine, disease, and frequent attacks by the Sioux led to a decline in the native population and reduced the tribes to a pitiful state, often commented upon by Indian agents, fur traders, soldiers, and visitors.

In 1862 the Santee Sioux in Minnestoa went on a rampage and killed over 500 settlers before fleeing west. The U.S. Government devised a two-pronged military strategy to pursue the hostile Indians into North Dakota. General Henry H. Sibley led one column of troops westward from Minnesota to the Devil's Lake region. Meanwhile, General Alfred Sully went up the Missouri River to meet Sibley. In September 1863, Sully's troops engaged a group of Indians at the site of White Stone Hill. The following year the army mounted another campaign against the Sioux in North Dakota. Again Sully headed up the Missouri River, leaving from Fort Rice, which he had recently established. After chasing the Indians through the Badlands and fighting the Battle of Killdeer Mountain, Sully emerged at the confluence of the Yellowstone and the Missouri River. He then left troops at both Fort Union and Fort Berthold on his way downstream.

For a number of years it had been suggested that a series of military posts should be established along the Missouri River to protect the frontier. Indian agents had specifically requested that troops be stationed at Fort Berthold to protect the friendly Mandan, Hidatsa, and Arikara at Like-a-Fishhook Village from the attacks of the Sioux. Another factor influencing the establishment of a military post in this vicinity was the discovery of gold in Montana and Idaho, which resulted in increasing steamboat traffic on the Missouri River and the desire to open an overland route from St. Paul to Fort Benton. During the 1860s, as part of this plan, Fort Buford was built near the old fur trading post of Fort Union; Fort Totten was established near Devil's Lake; and Fort Stevenson, which

was to serve as district headquarters, was erected near Fort Berthold (Athearn 1967).

When troops had first been stationed at Fort Berthold in September 1864, they had resided at the fur trade post. After a disagreement with the traders they built some log buildings outside the post. A site for the new military fort was chosen in June 1867 between Douglas and Garrison Creeks and named after General Thomas G. Stevenson, who died in Spotsylvania during the Civil War. The new fort was located 18 miles downstream from Like-a-Fishhook Village, supposedly close enough to protect it from the Sioux, yet far enough away not to infringe on the village's fields and discourage intercourse between the soldiers and the Indians, particularly the women. In reality, the distance was too great to protect Like-a-Fishhook from attack and too close to halt fraternization. Fort Stevenson also protected several important trails and mail routes. This included the trail which connected Fort Stevenson with Fort Totten. Also, an important trail ran south to Fort Rice, and another ran north to Fort Buford. Life at Fort Stevenson was best captured by its first commander, General Philippe Regis Denis de Keredern de Trobriand, who left a remarkable journal of his experiences. Ray Mattison (1951b) has written a detailed history of Fort Stevenson. The site was partially excavated during the River Basin Surveys (Smith 1960).

The conditions at Like-a-Fishhook Village at this time was influenced by the decline of the fur trade and a growing dependence on Government annuities. The disappearance of game animals from the region and the hostility of the Sioux during the 1860's convinced the Chouteaus in St. Louis that the Upper Missouri was no longer a profitable area. In 1865 they sold out to a firm known as the Northwestern Fur Company. This company met with financial misfortune and three years later sold out to the Leavenworth, Kansas, firm of Durfee and Peck.

As the influence of the fur trade declined, the influence of the U.S. Government, through the Bureau of Indian Affairs, increased. In the past the Upper Missouri had been treated as a single geographic region, with a single Indian agent, usually with fur trade connections, who would make a

yearly visit up the river to visit the tribes. The distribution of annuities was usually assigned to the fur trade companies. In June 1868, a permanent Indian Agency was established at Like-a-Fishhook Village when agent Mahlon Wilkinson moved into Fort Berthold. In 1874 the old fur trading post burned down and the next year the Indian Agency was moved to a new site, one and a half miles downstream from the village (archeological site 32ML49) (Smith 1972; Meyer 1977).

In 1869 the Three Affiliated Tribes negotiated a reservation with the U.S. Government which was given legal status by an executive order issued April 12, 1870. Another executive order in 1880 reduced the size of the reservation considerably. The Fort Berthold Indian Reservation reached its final form, prior to the dam building efforts of the 1940s, in 1886 with the assignments of individual allotments. Thus the reservation covering 7,833,043.15 acres in 1870 was reduced to 965,620 acres when the 1886 agreement was ratified by Congress in 1891 (Meyer 1977).

Conditions on the reservation, as reported by a number of sources, were poor. Harried by the Sioux, the residents of Like-a-Fishhook were confined to the vicinity of the village for fear of attack. When crops failed they faced starvation, with government subsidies never enough to feed the tribes. Smallpox, cholera, and venereal diseases all made inroads in the native population. Power struggles between various factions on the reservation was also in evidence. The best known incident involved the Crow-Flies-High band of Hidatsa. After a run-in with other chiefs, Crow-Flies-High and his followers left Like-a-Fishhook Village and established themselves near Fort Buford around 1870. This site (32MZ1) was investigated by Malouf (1963) during the River Basin Surveys. Under the pressure of the Indian agent, this band was forced to move back to the agency in 1894. Most of Crow-Flies-High followers then settled around Shell Creek.

The Indian Bureau not only looked after the physical well-being of the Tribes, but also attempted to influence their spiritual outlook and took an active part in forcing acculturation. Two of the major methods of promoting cultural change was the opening of Christian missions on the re-

servation and providing schools for the children. The first day school on the reservation was opened by H. L. Clifford in 1870, but was discontinued later that year. In 1873 Agent Sperry opened another school and in 1875 Hannah Briggs came to the agency as the teacher and provided some continuity during her four-year tenure. Although the Three Tribes had been exposed to Christianity, the first permanent mission on the reservation was established by Reverend Charles L. Hall in 1876 at the behest of the American Board of Commissioners for Foreign Missions, a Congregational association. During his 46 years at the reservation Dr. Hall had a great deal of influence among the tribes. The story of the Fort Berthold Mission is told by his successor Rev. Harold Case (1977) in a rather disjointed volume.

American Government policy towards Native Americans most dramatically affected the Three Tribes at Fort Berthold by the decision in the early 1880s to break up Like-a-Fishhook Village and encourage the Indians to become self-sufficient farmers by settling on individual allotments. In 1884 Abram J. Gifford became Indian Agent at Fort Berthold and convinced a few families to abandon the village and settle on newly broken land some twenty miles upstream. The Arikara were the first to leave and, by 1888, Like-a-Fishhook Village was all but deserted. Some sense of community remained as related families tended to settle in groups. Generally, the Arikara located in the eastern part of the reservation near the agency and mission, the Mandan south and west of the Missouri, and the Hidatsa in the vicinity of the later agency town of Elbowoods, across from the mouth of the Little Missouri (Meyer 1977).

Two of these new Indian communities in the vicinity of the Lake Sakakawea Project Area were Armstrong, or Nishu, and Beaver Creek, sometimes confused with Ree or Stoeltington. According to Mattison (1951a) the Arikara community of Armstrong was located in the SW $\frac{1}{4}$ of Section 21 and NE $\frac{1}{4}$ of Section 29, Township 147N, Range 88W. In 1894 the Armstrong School was established at this spot. Soon other aspects of a community center were built at this location, including a Catholic Church, erected in 1902, a Congregational Church, and a cemetery. A tribal dance hall was also located there, which was extant in 1949 but gone by 1951 (Hartle 1963:128).

The Beaver Creek community was also focused around a school. Just west of the Beaver Creek Day School was the site of the last Arikara earthlodge, a ceremonial structure built about 1908 and torn down around 1920. The remains of this dance hall was described by Metcalf (1963a) as part of the River Basin Surveys. Mattison (1951a) confused Beaver Creek with the settlement of Ree, which was originally called Stoelington. Ree was located in the NW $\frac{1}{4}$ of Section 4, Township 146N, Range 88W while the Beaver Creek store was situated a mile and a half away in the SW $\frac{1}{4}$ of Section 5, Township 146N, Range 88W.

Another part of life on the Fort Berthold Reservation was Fort Stevenson. During its existence the post played a major role in the development of the region. Many sources deal with the relationship between the soldiers stationed there and the Three Tribes on the Fort Berthold Reservation. For example, in 1868 de Trobriand enlisted a corps of scouts recruited from the Three Tribes to fight against the Sioux. These scouts, mainly Arikara, respected by Indians and whites alike, had their own graveyard behind Like-a-Fishhook Village (Meyer 1968).

The era of native hostility to Euro-American activities in the Upper Missouri came to a close in the 1870s. The Sioux menace diminished after the military campaigns of 1876, most famous for the disaster at Little Big Horn. Slowly but surely the Indians settled at their respective reservations, such as Standing Rock and Devils Lake. In 1872 the military established Fort McKean and the following year, when the Northern Pacific Railroad reached the Missouri River at that location, the town of Bismarck sprung up and Fort Abraham Lincoln was established. The arrival of the railroad signaled the end of the frontier. Fort Stevenson was no longer needed to provide military protection for the region. On August 31, 1883 the post was officially abandoned, the troops transferred to Fort Buford and the buildings transferred to the Fort Berthold Indian Agency (Mattison 1951b). The Indian Agent converted the buildings for use as an industrial school for the children of the Three Tribes. In September 1894 part of the fort burned down and the school was relocated to Elbowoods.

The last major event affecting the Indians on the Fort Berthold Reservation was the removal of the Indian Agency to Elbowoods. With the abandonment of Like-a-Fishhook Village, the failure of the Fort Stevenson School, and the allotment policy of the U.S. Government, the Indian Agent at Fort Berthold thought it appropriate to remove the agency away from the former village site. In 1890 most of the buildings at the old Agency had burned down. Two years later the Agency was moved to the site of Elbowoods, where the Congregational Mission also relocated. Thus by the turn of the century, Like-a-Fishhook Village, Fort Berthold, and Fort Stevenson were but memories, and the Three Tribes had entered into a new period in their history (Smith 1972).

4.4.3 Euro-American Settlement and Agricultural Development

The era of the fur trade, and the military and reservation frontier set the scene for the first permanent Euro-American settlement in the Lake Sakakawea Project Area. The first Euro-Americans to move to the region were those associated with the fur trade, the military, or the reservation. Several of the fur traders, mostly of French descent, settled with the Three Tribes. Perhaps the most famous trader to live among the Indians was Pierre Garreau. Involved in the 1862 defense of Fort Berthold, Garreau, who later served as interpreter for the post, lived out his life there. Other fur traders who lived at Fort Berthold and married into the Three Tribes include Charles Patineaude, Jefferson Smith, and Pierre Beauchamp (Meyer 1977).

On the reservation itself lived a number of Euro-Americans who were associated with the Agency. This would include the various Indian Agents, teachers, and missionaries. The Rev. Charles Hall is one example.

Another important industry which attracted Euro-American settlers to the region was the steamboat trade. Associated with steamboating on the Missouri River were lumberyards and so-called "wood hawks." The first steamboat to complete a trip up the Missouri River was the American Fur Company's Yellowstone, which made the journey from St. Louis to Fort Union in 1832. Thereafter the fur company attempted to send at least one boat

up river each year. At first the Chouteaus built their own boats, but after a series of accidents they adopted the concept of chartering steamboats. With the discovery of gold in Montana the number of steamboats on the Upper Missouri River greatly increased until, in 1878, 46 steamers reached Fort Benton carrying a total of 8,764 tons of merchandise (Sprunk 1980). The principal steamboat lines were the Coulson, Benton, and Baker companies. All of these firms needed wood cut, stacked, and available along the river. Thus lumberyards sprung up, employing wood hawks to cut the timber, and around these yards developed the first nonmilitary Euro-American communities on the Upper Missouri River.

In his history of Mercer County, C. B. Heinemeyer listed several former wood hawks among the earliest settlers. This included John Nagel who started a woodyard opposite Fort Stevenson in 1865, another west of Emanuel Rock a year later, and still a third at Knife River (Heinemeyer 1932).

Towns were founded to take advantage of the river trade. For example, Mannhaven was begun by Henry Mann, Jacob Bohrer, and Frank Bohrer, who formed the Mannhaven Mercantile and Transportation Company in 1896. The expressed purpose of this firm was the construction of the steamboat Bismarck which was to carry grain from Mannhaven to Bismarck. To meet the needs of a growing agricultural region Mannhaven had a store, warehouse, lumberyard, and grain elevator. The arrival of the railroad ruined Mannhaven, for it was meant to utilize river traffic and could not compete with the new railroad towns.

This story was repeated for other early river towns in the vicinity of Lake Sakakawea. The village of Expansion was founded by John Bloodgood of New Salem, North Dakota, and Jacob Kruckenberg of Hazen in 1899. Located near the Lake Sakakawea Project Area, Mattison (1951a) placed the town in the NE $\frac{1}{4}$ of Section 27, Township 147N, Range 86W. Like Mannhaven, the town of Expansion was specifically designed to accommodate the farmers in the area by giving them an access to river transportation for their crops. Here the first steamboat, called the Expansion, to be built in Mercer County was put into operation. Henry Sagehorn from Fort Yates ran the town store. Later the store was purchased by John Boher, who also erected a grain elevator. In 1905 the I. P. Baker steamer line company established a lumberyard in Expansion with John Boher as manager. One year later Benjamin Stoeling took over the lumber business (Heinemeyer 1932). In addition the town had a ferry, a post office, and a saloon. Never very big, the 1910 census listed 35 people as living in Expansion. Like Mannhaven, when the Northern Pacific Railroad was completed from Mandan to Kildeer in 1914, Expansion lost its agricultural market and began to decline. The year 1922 was the last year that a post office was listed for the town (Mattison 1951a).

Stoelington, later known as Ree, was another river town based on supplying lumber and access to steamers. In 1909 the Expansion Lumber Mercantile Company, under the management of Benjamin Stoeling, built a branch lumberyard within the Fort Berthold Indian Reservation, on the NW $\frac{1}{4}$ of Section 4, Township 147N, Range 88W. A post office was established with C. B. Heinemeyer serving as postmaster. Later the name of the town was changed from Stoelington to Ree. Mattison (1951a) confused this town with the Arikara community at Beaver Creek, located nearby. The Bismarck Elevator & Investment Company erected an elevator in Ree, which along with the lumber yard eventually was managed by Fred Kludt and Thomas Figenskau. Jacob Bacal ran the town store. Like the other river towns, Ree was abandoned after the railroad was built and farmers began to haul their grain to Beulah (Heinemeyer 1932).

The town of Coal Harbor was originally established in the early 1880s on the Missouri in Section 34, Township 147N, Range 84W by George

Gilbert. He planned to mine the coal deposits located nearby and ship the coal downriver. When this scheme failed, Gilbert moved to the town of Victoria on Wolf Creek in Section 35, Township 147N, Range 84W. This town had been founded in 1883 by J. S. Lette, Secretary of the Northern Pacific Colonization Bureau, settled by Canadian immigrants from Prince Edward Island, and named after the Queen of England. When Gilbert became postmaster of Victoria in 1885, the name of the town was changed to Coal Harbor. In 1904, when the Minnesota, St. Paul, and Saulte Ste. Marie Railroad, better known as the "Soo," extended their line north from Underwood, a new town was platted, seven miles from old Coal Harbor, in the NW $\frac{1}{4}$ of Section 23, Township 147N, Range 83W. The new town was named for W. A. Cole, a railroad employee, and in 1927 the post office took the name Coleharbor (Mattison 1951a; Robinson 1978; Sprunk 1980).

The territory of northern Dakota, which had been considered relatively barren and isolated, suddenly became attractive in the late 1870s with the decline of the Sioux menace and their confinement on reservations. The availability of open land, increased immigration, and the end of isolation which came with the extension of railroads to the region resulted in the so-called first "Great Dakota Boom," lasting from about 1878 to 1885. This boom led to the development of "bonanza farming," huge farms sometimes extending for two or three sections, particularly in the Red River Valley. Most of these farms, owned by out-of-state investors, were devoted to wheat to take advantage of technical improvements in milling flour which would eventually make Minneapolis the flour milling capital of the nation.

Despite the boom in the Red River Valley, the settlement of central North Dakota lagged until the middle 1880s when the promotional work of the Northern Pacific Railroad aided colonization efforts. By 1873 this road had reached Bismarck. In 1886 when the Great Northern Railroad reached Minot, it suddenly developed from nothing to a town of 5,000 people. Following the first Dakota boom, the population began to shift westward. Ranchers and stock growers followed the railroad west of the Missouri River into the Slope and Badlands county. The towns of Dickinson and Medora developed along the Northern Pacific line. By the late 1870s,

there were half a million head of cattle roaming the region between the Black Hills and the Little Missouri (Wilkins and Wilkins 1977). Besides Theodore Roosevelt, who purchased the Maltese Cross Ranch in 1883, the most famous personality in western North Dakota was the Marquis de Moris, who built the town of Medora in 1883-1884. Some of these ranchers, including the Marquis, allowed their herds to roam as far as the Fort Berthold Indian Reservation. To deal with this problem, the Indian Agency initiated the concept of leasing reservation land to non-native ranchers (Meyer 1977).

Until the turn of the century, most settlers in North Dakota stayed close to Northern Pacific and Great Northern lines. However, the expansion of railroad lines at this time, particularly the Milwaukee, St. Paul, and Saulte Ste. Marie - the "Soo" line, led to a second boom period in North Dakota, lasting from 1898 to 1915. Although some early homesteaders, such as Joseph Henry Taylor who built a cabin in the vicinity of Washburn in 1869, had settled along the Missouri River north of Bismarck, not until rail service was provided did this area boom. John Satterlund, a young Swedish immigrant, and John Veeder are generally credited with founding the town of Washburn in 1882. The following year it boasted a general store, flour mill, hotel, and newspaper (Robinson 1976). Seeing the agricultural potential of the region, W. D. Washburn, the U.S. Senator from Minnesota, purchased 115,000 acres from the Northern Pacific land grant and planned the construction of the Bismarck, Washburn & Fort Berthold Railroad to facilitate the settlement of the area. In a pamphlet produced in 1899, Washburn bragged that wheat growing was very profitable in an attempt to attract farmers from the Midwest. In 1900, the Washburn railroad was taken over by the Soo, and the rails reached the town of Washburn in 1902 (Casseday 1899; Robinson 1978).

The prospects of a railroad coming helped to populate the Lake Sakakawea region. Some of the earliest settlers had moved to the area in the waning days of Fort Stevenson. After the Indian School closed, the fort's buildings were put up for auction in 1897, and the names of some of the purchasers included John Satterlund, W. H. Allen, and George and John Robinson. On August 10, 1903, a post office called Robinson, named after

the Robinson brothers, was established in the NW $\frac{1}{4}$ of Section 28, Township 148N, Range 86W, with Mrs. Nancy J. Frederickson as postmaster. On September 2, 1905, the post office was moved to the Charles Ludenbeck homestead in the NE $\frac{1}{4}$ of Section 20, Township 148N, Range 86W and renamed Emmet after Laudenbeck's baby son. For many years this rural post office survived as a general store and gasoline station. Emmet is now located in Section 9, Township 148N, Range 86W near the Douglas Creek Recreational Area (Robinson 1978; Sprunk 1980).

Anticipating the arrival of the Soo railroad, two brothers, Theodore R. and Cecil Taylor, from Bismarck, nephews of the early settler in McLean County, Joseph H. Taylor, founded a townsite they called Garrison in 1903. The original townsite was located in the NW $\frac{1}{4}$ of Section 6, Township 147N, Range 64W. The brothers erected a lumberyard, general store, and residences, and on June 17, 1903 postal service was put into effect with Cecil Taylor serving as postmaster. The name Garrison was adopted from the nearby creek, so-called because the soldiers of Fort Stevenson bathed there.

After the Soo Railroad reached Coleharbor in 1905, a new town was laid out by the railroad along its projected northern route, about four miles north of the original town of Garrison in Section 8, Township 148N, Range 84W. In August 1905, Soo agents began to sell lots in the new townsite, and when the store, post office, and lumberyard from Old Garrison was moved to the new location the new town took the name of Garrison. The McLean County Independent, a newspaper in its embryo stage, also relocated to Garrison from Robinson (Mattison 1951a; Robinson 1978; Sprunk 1980).

With the railroad, agricultural development of its hinterland, and the beginning of coal mining in the area, Garrison emerged as the most important town in the region. The city was incorporated on March 20, 1916 and began to brag that it was "The Bread and Butter City" in a region of "Corn and Plenty" (Sprunk 1980).

Coal mining, in addition to agriculture, was an important part of the early local economy. Between 1914 and 1916 there were nine coal mines in

operation in McLean County and six in Mercer County (Bliss 1916). The Stephens Coal Mines were located in Sections 18 and 19, Township 148N, Range 84W, near the town of Garrison, and was said to employ many people from the town (Robinson 1978). The coal was used locally, and also transported by train to neighboring towns. A short distance south of Garrison, in the E $\frac{1}{2}$ of Section 18, Township 148N, Range 84W, was the Garrison Coal Mine, owned in 1918 by the Garrison Coal, Light, and Power Company. This plant provided coal and electric power to the town at low rates (Bliss 1918; Sprunk 1980). Other important local coal mines opened at this time included the Rupp Mine, operated by E. R. Rupp on land leased from the U.S. Government in the E $\frac{1}{2}$ of NE $\frac{1}{4}$ of Section 25, Township 148N, Range 85W and the Siebel Coal Mine owned by Frank Seibel in the NW $\frac{1}{4}$ of Section 30, Township 148N, Range 84W (Bliss 1918).

As railroads made access to the region easier and as its agricultural value was recognized, settlers began arriving in increasing numbers. This included taking up claims in what had formerly been lands reserved for the Three Tribes on the Fort Berthold Reservation. In 1891, after the first issuance of individual allotments to the Three Tribes, portions of the reservation were sold off at \$1.50 an acre. In 1910 additional sections of the Fort Berthold Reservation were opened to non-native settlement. Another problem which tended to disenfranchise the members of the Three Tribes from their reservation lands was tied to the allotments themselves. As the original grantors died, their allotments were split among their heirs, resulting in a process called "fractionalization." Because these fractionalized lands were spread over different parts of the reservation, the usual solution was to sell the land or lease it to white operators. Thus a substantial portion of the reservation came to be owned or leased by Euro-Americans (Meyer 1977).

Congress, in the Act of 1910, also allowed free townsites on the reservation. As the Soo Railroad continued to build northward to the Missouri River, several towns sprang up, including Van Hook and Sanish, founded in 1914-1915.

With the exception of the Three Tribes, McLean County was settled mainly by Scandinavians, Germans, and Anglo-Saxons. A map of the ethnic distribution of the county, found in the book, McLean County Heritage, shows the area around the eastern part of Lake Sakakawea as occupied by Anglo-Saxons, Norwegians, Germans, and German-Russians. Most of the earliest settlers to this region were Old-Stock Americans coming from the East and Midwest. Between 1900 and 1920 the county saw its biggest growth as the railroad allowed immigrants to pour in. Russians settled around Max. Scandinavians took up homesteads in the western part of the county and on the newly opened portions of the Fort Berthold Reservation. A big influx occurred about 1916, encouraged by the Klein-Johnson Company, which promoted settlement in the area. At that time many Germans and German-Russians arrived and settled around Garrison. The county population continued to grow until the mid-1920s. However, the drought and the depression of the 1930s resulted in the loss of population, as people who could not survive abandoned their homesteads. Not until the construction of Garrison Dam was the local economy to improve (Robinson 1978).

4.4.4 Damming the River

The final episode in the history of this region to be discussed in this overview was the construction of Garrison Dam and the creation of Lake Sakakawea. As early as the 1920s, various groups in North Dakota began promoting the idea of building a dam on the Missouri River in the vicinity of the town of Garrison. In 1924 such a group was formed in the Devils Lake area, advocating that a dam at Garrison would provide water power, flood control, better water supply, irrigation, and recreational advantages for the state (Sprunk 1980). In 1927 Robert E. Kennedy, the State Engineer for North Dakota, in a report to the governor, proposed the idea of building a dam on the Missouri River at Garrison. The technical report summarized the data then available about construction design, safety, the effect on the river, and cost benefits (Kennedy 1927). In spite of such talk, no action was taken by the state, although a lobbying effort to convince the Federal Government to undertake this project was begun, led by North Dakota Senator Gerald P. Nye.

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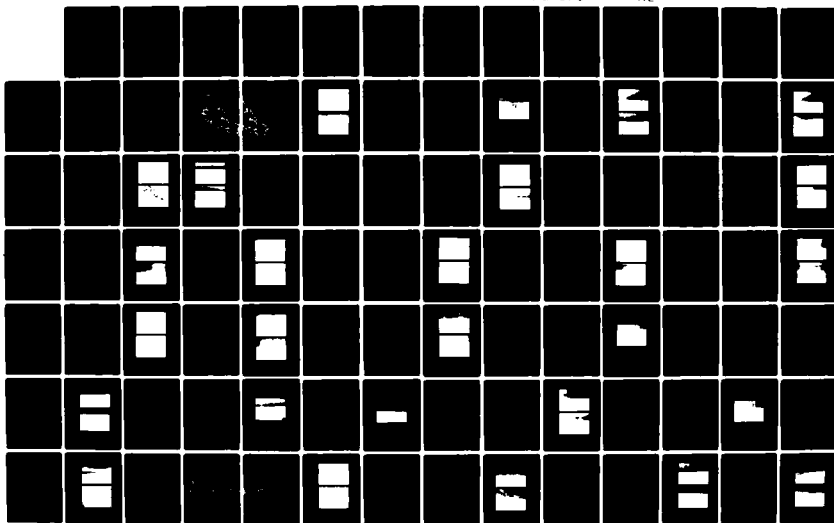
A CULTURAL RESOURCES INVENTORY OF EASTERN PORTIONS OF
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

The need for the dam was underscored by the drought and depression of the 1930s. A dam on the Missouri River in North Dakota for irrigation purposes seem imperative. In the 1940s the Federal Government began to formalize a plan for building such a dam, with both the Department of the Interior and the U.S. Army Corps of Engineers making preparations. The Army Corps' proposal, outlined by Colonel Lewis A. Pick in 1943, called for the construction of levees along the Missouri, with dams at several locations between Sioux City and Fort Peck, including one at Garrison. W. Glenn Sloan of the Bureau of Reclamation drew up an alternative plan which did not include a dam at the Garrison site (Meyer 1968). In 1944 a compromise plan was worked out, incorporating projects proposed by both Pick and Sloan, and presented to Congress. The construction of Garrison Dam was then authorized by Congress in the Flood Control Act of 1944 (Public Law 534).

Construction of the dam began in 1947. Garrison Dam, a rolled fill earth design, was completed in 1953, with President Eisenhower attending the closure ceremonies. The reservoir began to fill the next year. During the peak period of construction, some 2,300 men were employed on the project. Several new towns sprang up to house the workers, including the Government center at Riverdale, Pick City, Silver City, Big Bend, Dakota City, and Sitka (Sprunk 1980).

The filling of the reservoir had an adverse effect on the people living on the Fort Berthold Reservation. Three towns on the reservation, Elbowoods, Van Hook, and Sanish were inundated. The impact on the Three Tribes has been discussed in an article appearing in the 1968 issue of North Dakota History by Roy Meyer (Meyer 1968). The Indian Agency was relocated at New Town, where most of the businesses from Van Hook and Sanish also moved. A few residents of old Sanish, led by Bigelow Neal, attempted to establish a new town of Sanish. White Shield emerged as a new Indian community in western McLean County (Robinson 1978).

The adverse impact the filling of Lake Sakakawea had upon cultural resources was somewhat mitigated by the work of the River Basin Surveys. The results of this archeological salvage program was previously discussed

in Section 4.2. This present study is an attempt to inventory those cultural resources still extant within portions of the eastern shoreline areas around the reservoir.

SECTION 5.0
PROJECT GOALS AND METHODOLOGY

5.1 PROJECT GOALS

The major goals of the Lake Sakakawea project were twofold: (1) identification and (2) management documentation of cultural resources. Documentation for the identification goal involved defining the presence, location, and extent (where possible) of cultural resources. Management documentation included determining the significance of resources for nomination to the National Register of Historic Places following the guidelines specified in 36CFR60.6, identifying current or potential impacts, and recommending programs to lessen the effect of impact.

A secondary objective involved trying to determine the chronology of the identified sites. The data collected during the inventory which might have temporal meaning (projectile points, pottery, historic crockery, etc.) are so scant (and primarily with surficial provenience) that only a general chronological assignment has been possible to select sites. With the exception of a few general site type comments, no attempt has been made to use the inventory data to identify the function of individual sites. The data are simply not detailed enough.

Future archeological work with the sites identified in the inventory areas could be geared specifically towards defining chronology and function. One approach to obtaining such answers may lie in studying how the Missouri River and its environs have been utilized by human groups through time. We know from previous studies that cultural groups have for a long time (Paleo-Indian, Archaic, Woodland, Plains Village, Euro-American), and continuing today, impacted the area. We know generally, and with few exceptions, that the settlement patterns have changed from nomadic to sedentary; the exploitative patterns from hunters and gatherers, to horticulturists, to agriculturists. Even with this information, there are many questions remaining unanswered about specific regions. How did cultural groups use the different ecosystems along with the Missouri River? Has the use of resources within certain ecosystems remained consistent through time?

What specializations have developed? The study area for this inventory project is one of the regions for which we do not have answers to questions such as those presented above. The task of finding answers will be further complicated by the removal of certain portions (the floodplain and terrace ecosystems) of the study area by the damming of the Missouri River.

Ahler et al. (1981) have begun a systematic exploration of the breaks and uplands ecosystems with their work on the Cross Ranch. They (1981:16-17) have posited some excellent and testable hypotheses for their work. As mentioned above, the goals for this project focused on collecting data for identification and management purposes. These data will not address specific hypotheses such as Ahler et al.'s (1981:16-17), but they can certainly be of use in designing future programs. The Lake Sakakawea inventory revealed the presence of numerous sites and varied site types. The individual sites and the general site types are similar not only to other areas along the Missouri River, but also to other upland regions to the south now being inventoried as a result of energy-industry related projects. The number of sites inventoried during this Lake Sakakawea project could provide a reasonable sampling base for statistical testing of research hypotheses. Much more detailed information could be gathered on settlement patterns, and micro and macro environments. With carefully designed research projects, questions concerning chronology and function may be answered. Such knowledge about an area as large as that inventoried during this project would provide a useful comparative base.

5.2 METHODOLOGY

The areas inventoried during the Lake Sakakawea project are listed below. The acreage associated with each area is an estimate provided by the COE and is based on a mean lake elevation of 1,850 ft.

- | | | |
|-----------------------------------|---|-------------|
| 1. Nishu Public Use Area | - | 1,800 acres |
| 2. Douglas Creek Public Use Area | - | 310 acres |
| 3. National Guard Recreation Area | - | 910 acres |

4. Garrison Bay	-	550 acres
5. Fort Stevenson Public Use Area	-	610 acres
6. Totten Trail Park	-	280 acres
7. Lake Sakakawea State Park	-	640 acres
8. Beulah Bay Public Use Area	-	310 acres
9. Hazen Bay Recreation Area	-	750 acres
10. Beaver Creek Bay	-	1,230 acres

All of these areas have been impacted to varying degrees by recreation traffic. Those areas most affected are the Fort Stevenson Public Use Area and Lake Sakakawea State Park. The areas least affected are the National Guard Recreation Area and the Nishu Public Use Area.

The COE provided a series of maps including USGS topographic quadrangle sheets (1" = 2000'), COE Boating and Recreation maps, Garrison Dam-Lake Sakakawea Real Estate Tract maps, and 1892 maps of the Missouri River Trench. In addition, a 1974 set of black and white aerial photographs were provided (1" = 2000'). The topographic quadrangles, the Boating and Recreation maps, and the 1974 aerial photographs proved to be the most useful and formed the basis of the working field maps. Heavily impacted portions within each inventory area, access routes, and land ownership were determined from these maps. All access routes across private land were cleared with the landowner and the COE area engineer.

Two crews were used to survey the inventory areas, usually with each crew covering a separate inventory area. Crew size fluctuated during the project from 2-4 members, but the standard was 2 crew members. Each inventory area was covered by pedestrian survey. Much of the topography of the inventory areas consists of level hills grading into ridges traversed by heavily wooded drainages. The whole ridge-drainage pattern is then truncated by the waters of Lake Sakakawea. Many of the ridges are narrow and the sides steep. The field methods section of the proposal specified that the crews would walk parallel passes across the landscape with crew members spaced 30 m apart. Where possible this procedure was followed. In many instances, because of the narrowness of many of the ridges, crew members were often spaced as close as 10-20 m and the number of parallel

passes were increased. All hills and ridgetops were covered extensively. The inventory areas are heavily vegetated with native prairie grasses all roadbeds, vertical road cuts, and gopher holes were intensively examined since these were often the only places where soils could be observed. Drainages, cutbanks, and shorelines were also examined.

The cultural remains were divided into prehistoric, historic, and isolated find resources.

Both prehistoric and historic sites were classified using the same criteria. A site was identified if one of the following was located: (1) three or more artifacts in close association (i.e., within a 25-m² area) and (2) a single feature (hearth, cairn, circle, foundation, etc.).

An isolated artifact (either one or two artifacts) was classified as an isolate find. This meant that the artifact was not associated with a feature and was not closely associated with a group of other artifacts.

When a site was located the first procedure involved a surface examination to establish the boundary of the resource. Boundaries were determined by the limits of cultural materials (if visible), the densities of those cultural materials, and external factors such as vegetation and topography. Boundaries, features, and artifacts were flagged with engineering pin flags for mapping. These flags were removed upon completion of recording the resource.

If the site was located in a heavy recreation or agricultural use area, no permanent rebar datum was set in place to avoid danger to humans, animals, or farm machinery. If no permanent datum was set then a temporary mapping datum was marked using flagging tape. Wherever it was possible, the sites were mapped from the datum using a Brunton compass mounted on a tripod. Distances were either taped or paced. Site locations were triangulated from permanent land features and plotted on the USGS topographic quadrangles.

Besides mapping, each site was photographed to show environmental setting, and feature location and size. The environmental setting, features, artifact types, depth of deposit (where tested), cultural affiliations, NRHP significance, and current and potential impacts of each resource were noted on North Dakota Cultural Resources Survey site forms.

Since so many of the cultural material scatters were buried, a systematic sampling scheme for the collection of artifacts could not be implemented. With the exception of 32ME539, buried cultural materials were visible only in roadbeds, and in gopher hole backdirt. In these cases the visible artifacts were described in situ as completely as possible. Any artifacts collected were those considered chronologically diagnostic or illustrative of the lithic reduction sequence. At SAI-LS-213 the vegetative cover was sparse and artifacts were readily visible on the ground surface. Artifacts were collected from this site along two, 20-m long transects located at 0° and 310° off the datum. Cultural materials were collected from 1-m x 2-m collection units within the transects. The transects were not chosen randomly but were located instead across the densest cultural material portion of the site.

Whenever time permitted, buried cultural material scatters were tested to determine depth. Tests were made using shovels and as requested by the COE the size of the pits were kept small (30 cm x 30 cm). All shovel pits were backfilled.

The artifacts recovered during the inventory were simply counted and described. The constraints of finances and time did not allow for in-depth studies, such as a wear analysis of utilized tools.

SECTION 6.0
DESCRIPTION AND EVALUATION OF IDENTIFIED SITES

6.1 SITE DESCRIPTIONS

This section presents a description of the sites located during the inventory of eastern portions of Lake Sakakawea in McLean and Mercer Counties. A total of 56 sites were located. The descriptions of the sites are presented by inventory area. No sites were found in the Douglas Creek or Totten Trail Park Public Use Areas. In the text, information on site description (area, features, artifacts), cultural affiliation, topographic position, condition integrity, significance, and management recommendations have been presented. Additional information has also been presented in Table 6.1. This table identifies the inventory area, legal location, Universe Transverse Mercator location, and map reference. Where possible, two photographs have been provided for each site. Unfortunately, photographs were not available for 32ML235. Where presented, the diameters of stone circle features were taken from the inside of the stone perimeter. Measurements between features were taken from the center of the features. A sketch map was drawn in the field of each site. These maps are attached to the site forms (Volume II), and have not been reproduced for this section. A total of five sites (32ML228, 32ME537, 32ME538, 32ME543, and 32ML258) were shovel tested. With the exception of 32ME538, all shovel tests revealed the presence of buried cultural materials. For some sites, a general chronological placement was possible based on the typological placement of recovered bifaces, recovered pottery rims, and the presence of metal cut marks on one bone element. The data collected during the inventory are considered too scant to address questions of site functions.

All of the sites are located within an Upland Grassland ecosystem (U.S. Army Corps of Engineers 1978:IV-56-57). This ecosystem is characterized by broad tablelands, rolling plateaus, and small rounded hills and buttes (Ibid:IV-56). All of the soils located in the inventory areas are generally classed as loams (USDA Soil Conservation Service 1979: General Soil Map, McLean County, North Dakota and 1978 General Soil Map, Mercer County, North Dakota). The native grasses common to loam soils include

Table 6.1
Lake Sakakawea Site Locations (by Inventory Area)

Number	Site Type	The Nishu Public Use Area Legal Location	UTM ¹	Map Reference
32ML244	Stone Circle and Other Rock Features	SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 18, T147N, R88W	5269750mN 278370mE	Blackwater Lake SW, 7.5 minute, 1967
32ML245	Pit	NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 14, T147N, R89W	5270970mN 275460mE	Blackwater Lake SW, 7.5 minute, 1967
32ML255	Stone Circle	NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 20, T147N, R88W	5269130mN 280110mE	Blackwater Lake SW, 7.5 minute, 1967
32ML256	Cultural Material Scatter	NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 20, T147N, R88W	526940mN 279960mE	Blackwater Lake SW, 7.5 minute, 1967
32ML257	Stone Circle and Other Rock Features	NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 13, T147N, R89W; SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 18, T147N, R88; SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 7, T147N, R88W	5270480- 5271200mN 277850- 278960mE	Blackwater Lake SW, 7.5 minute, 1967
32ML258	Earthworks	SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 18, T147N, R88W	5269700mN 279540mE	Blackwater Lake, SW 7.5 minute, 1967
Number	Site Type	National Guard Recreation Area Legal Location	UTM ¹	Map Reference
32ML225	Stone Circles and Other Rock Features	SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 36, T148N, R86W	5274270mN 306600mE	Emmet SE, 7.5 minute, 1967
32ML226	Stone Circle and Other Rock Features	NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 36, T148N, R86W	5274250mN 306460mE	Emmet SE, 7.5 minute, 1967

Table 6.1 (continued)

Number	Site Type	National Guard Recreation Area (continued)		UTM ¹	Map Reference
		Legal Location			
32ML227	Stone Circles and Other Rock Features	NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 36, NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 35, T148N, R86W		5274770mN 305390mE	Emmet SE, 7.5 minute, 1967
32ML228	Stone Circles and Other Rock Features	NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 36, T148N, R86W		5274240mN 305650mE	Emmet SE, 7.5 minute, 1967
32ML229	Stone Circle	SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 36, T148N, R86W		5274550mN 305570mE	Emmet SE, 7.5 minute, 1967
32ML230	Stone Circles	SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 35, T148N, R86W		5274530mN 305280mE	Emmet SE, 7.5 minute, 1967
32ML231	Other Rock Features	NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 36, T148N, R86W		5274320mN 305520mE	Emmet SE, 7.5 minute, 1967
32ML232	Stone Circles	NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 36, T148N, R86W		5274270mN 305920mE	Emmet SE, 7.5 minute, 1967
32ML233	Stone Circles and Other Rock Features	NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 36, T148N, R86W		5274260mN 306150mE	Emmet SE, 7.5 minute, 1967
32ML234	Stone Circles and Other Rock Features	NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 36; SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, T148N, R86W		5275180mN 306020mE	Emmet SE, 7.5 minute, 1967
32ML235	Stone Circles and Other Rock Features	NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, T148N, R86W		5275400mN 306220mE	Emmet SE, 7.5 minute, 1967
32ML236	Stone Circles	SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 25, T148N, R86W		5275660mN 306220mE	Emmet SE, 7.5 minute, 1967
32ML237	Stone Circle	SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 20, T148N, R85W		5276880mN 308600mE	Emmet SE, 7.5 minute, 1967

Table 6.1 (continued)

Number	Site Type	National Guard Recreation Area (continued)		UTM ¹	Map Reference
		Legal Location			
32ML238	Stone Circle and Other Rock Features	SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 30, T148N, R85W		5276500mN 308250mE	Emmet SE, 7.5 minute, 1967
32ML239	Stone Circles and Other Rock Features	NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 36, T148N, R86W		5275080mN 3063320mE	Emmet SE, 7.5 minute, 1967
32ML240	Stone Circle	NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 25, T148N, R86W		5275570mN 306575mE	Emmet SE, 7.5 minute, 1967
32ML243	Stone Circle	SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 25,		5275620mN 306630mE	Emmet SE, 7.5 minute, 1967
Garrison Dam Recreation Area					
Number	Site Type	Garrison Dam Recreation Area		UTM ¹	Map Reference
		Legal Location			
32ML241	Stone Circles and Cultural Material Scatter	NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 36, T148N, R85W		5274040mN 315720mE	Garrison Dam North, 7.5 minute, 1972
32ML242	Stone Circle and Other Rock Features	NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 35, T148N, R85W		5274100mN 314165mE	Garrison Dam North, 7.5 minute, 1972
32ML248	Stone Circles	NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 34, T148N, R85W		5274500mN 312480mE	Garrison Dam North, 7.5 minute, 1972
32ML249	Stone Circles	SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 34, T148N, R85W		5274520mN 312600mE	Garrison Dam North, 7.5 minute, 1972
32ML250	Stone Circles	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 34, T148N, R85W		5274620mN 312470mE	Garrison Dam North, 7.5 minute, 1972
32ML251	Stone Circles and Other Rock Features	NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 34, T148N, R85W		5274830mN 312775mE	Garrison Dam North, 7.5 minute, 1972

Table 6.1 (continued)

Garrison Dam Recreation Area (continued)				
Number	Site Type	Legal Location	UTM ¹	Map Reference
32ML252	Stone Circles	NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 34, T148N, R85W	5274840mN 312620mE	Garrison Dam North, 7.5 minute, 1972
32ML253	Stone Circle and Other Rock Features	NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 34, T148N, R85W	5274845mN 312400mE	Garrison Dam North, 7.5 minute, 1972
Fort Stevenson State Park				
Number	Site Type	Legal Location	UTM ¹	Map Reference
32ML246	Stone Circle	NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 5, T147N, R84W	5272830mN 318165mE	Garrison Dam North, 7.5 minute, 1972
32ML247	Stone Circle and Other Rock Features	NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 30, T148N, R84W	5275590mN 317180mE	Garrison Dam North, 7.5 minute, 1972
32ML254	Stone Circles and Other Rock Features	NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 31, T148N, R85W	5274670mN 317520mE	Garrison Dam North, 7.5 minute, 1972
Lake Sakakawea State Park				
Number	Site Type	Legal Location	UTM ¹	Map Reference
32ME535	Miscellaneous (Bone Scatter)	SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, T147N, R85W	5265520mN 314780mE	Garrison Dam North, 7.5 minute, 1972
32ME536	Cultural Material Scatter	SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, T147N, R85W	5265850mN 315060mE	Garrison Dam North, 7.5 minute, 1972
32ME549	Cultural Material Scatter	SW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 25, T147N, R85W	5266100mN 315180mE	Garrison Dam North, 7.5 minute, 1972
32ME553	Cultural Material Scatter, Depression, Foundation, and Machinery	SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 25, T147N, R86W	5265360mN 314850mE	Garrison Dam North, 7.5 minute, 1972

Table 6.1 (continued)

Number	Site Type	Hazen Bay Public Use Area		UTM ¹	Map Reference
		Legal Location			
32ME531	Stone Circle	SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 34, T147N, R86W		5264230mN 301860mE	Emmet SW, 7.5 minute, 1967
32ME538	Cultural Material Scatter	SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 34, T147N, R86W		5265080mN 301950mE	Emmet, SW, 7.5 minute, 1967
43ME539	Cultural Material Scatter	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 33, T147N, R86W		5265370mN 301640mE	Emmet, SW, 7.5 minute, 1967
32ME540	Stone Circle	SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 34, T147N, R86W		5264960mN 302140mE	Emmet SW, 7.5 minute, 1967
32ME541	Stone Circle	SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 34, T147N, R86W		5265020mN 302580mE	Emmet SE, 7.5 minute, 1967
32ME542	Cultural Material Scatter	SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 34, T147N, R86W		5264165mN 302720mE	Emmet SE, 7.5 minute, 1967
32ME543	Cultural Material Scatter and Pit	S $\frac{1}{2}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 33, T147N, R86W		5264650mN 300860mE	Emmet SW, 7.5 minute, 1967
32ME550	Other Rock Features	SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 34, T147N, R86W		5265340mN 302780mE	Emmet SE, 7.5 minute, 1967
32ME551	Stone Circle	SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 33, T147N, R86W		5264210mN 300770mE	Emmet SW, 7.5 minute, 1967
32ME552	Stone Circle	SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 33, T147N, R86W		5265300mN 301780mE	Emmet SW, 7.5 minute, 1967

Table 6.1 (continued)

Number	Site Type	Beulah Bay Public Use Area Legal Location	UTM ¹	Map Reference
32ME537	Cultural Material Scatter and Hearth	SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 33, T147N, R87W	5265100mN 291340- 291700mE	Blackwater Lake SE, 7.5 minute, 1969
Number	Site Type	Beaver Creek Public Use Area Legal Location	UTM ¹	Map Reference
32ME532	Cultural Material Scatter	SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 17, T146N, R88W	5260040mN 280160mE	Beulah NW, 7.5 minute, 1969
32ME533	Cultural Material Scatter and Other Rock Features	SE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 8, T146N, R88W	5262860mN 280550mE	Beulah NW, 7.5 minute, 1969
32ME534	Cultural Material Scatter	NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 8, T146N, R88W	5262690- 5262880mN 280120- 280560mE	Beulah NW, 7.5 minute, 1969
32ME544	Cultural Material Scatter and Other Rock Features	SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 17, T146N, R88W	5260110mN 279600mE	Beulah NW, 7.5 minute, 1969
32ME545	Stone Circle	SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 18, T146N, R88W	5260940mN 279030mE	Beulah NW, 7.5 minute, 1969
32ME546	Cultural Material Scatter	NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 18, T146N, R88W	5260840mN 278900mE	Beulah NW, 7.5 minute, 1969
32ME547	Cultural Material Scatter and Stone Circle	SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 17, T146N, R88W	5260820mN 279600mE	Beulah NW, 7.5 minute, 1969

¹UTM calculated to center of site area

blue grama, western wheatgrass, threadleaf sedge, prairie junegrass, and fringed sage. On the drier, south-facing slopes within the Upland Grassland ecosystem, big sandgrass, yucca, prickly pear, bluestem, and wolf berry may be found. Many of these native species have been replaced after disturbance by exotics, the most common of which are crested wheatgrass and smooth broomgrass (U.S. Army Corps of Engineers 1978:IV-57).

A total of 37 stone circle sites were identified. Basic descriptive data collected for each site are presented below. A standard statement discussing integrity, significance, and management recommendations was prepared and is referenced where applicable for individual stone circle sites. This statement follows the site description for 32ML255.

6.1.1 Nishu Public Use Area

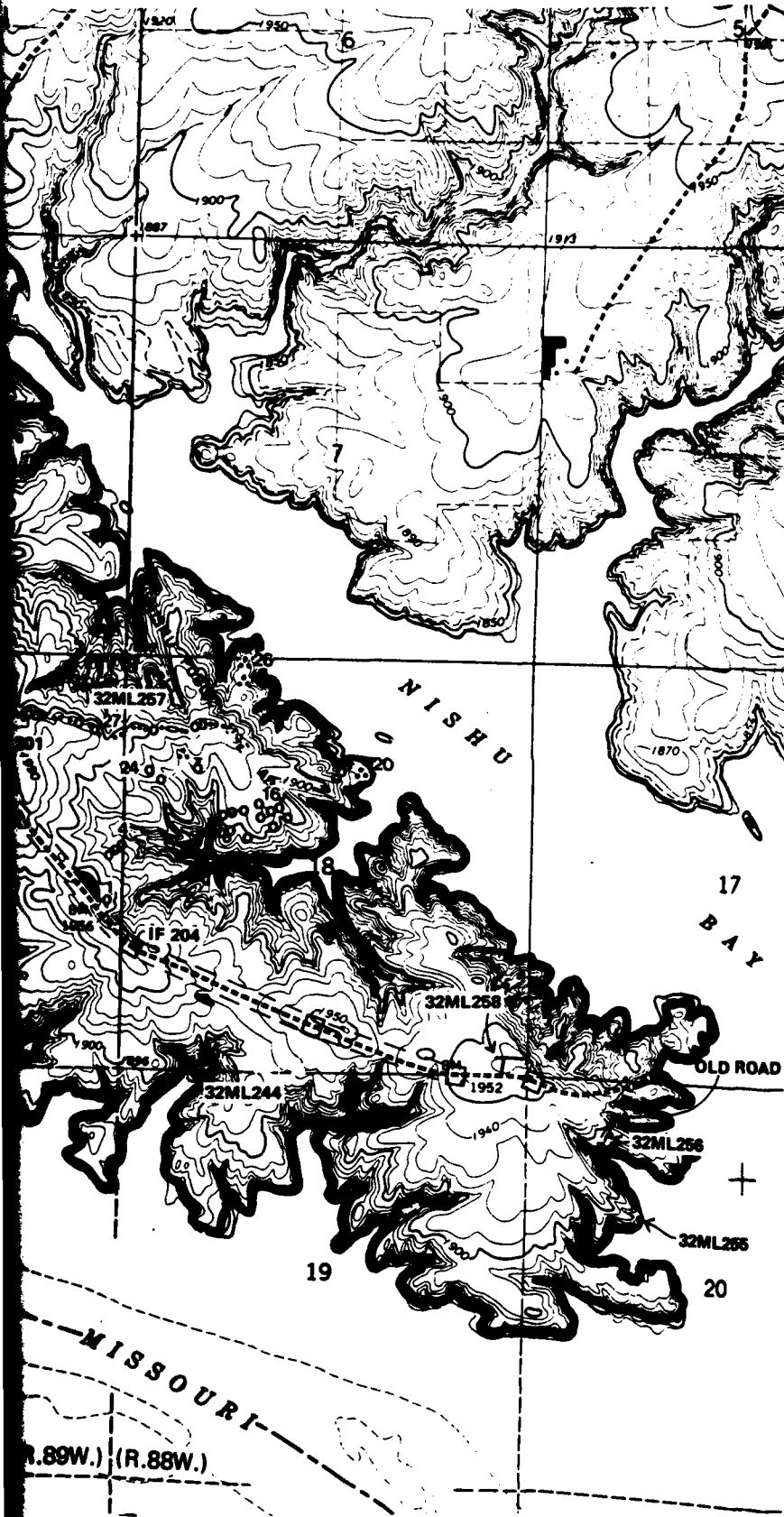
The Nishu Public Use Area is located in McLean County within Township 147N, Range 88W and Township 147N, Range 89W. A total of six sites were identified during the inventory (Figure 6.1). These include two linear mounds at one site, one eagle trapping pit, one stone circle, one stone circle and historic foundation, one stone circle and historic depression, and one extensive stone circle and stone circle, cairn, and rock alignment site.

32ML244

Site Type: Stone Circle and Other Rock Features (Figures 6.2 and 6.2a)

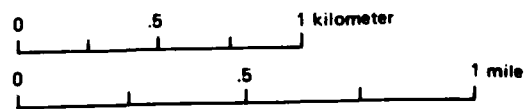
Description: The site is composed of prehistoric and historic features located on the top of a narrow ridge extending into a small inlet north of the Missouri River channel. A stone circle measuring 6 m N-S x 5 m E-W is composed of 24 stones. Four cairns are situated in a square shape. There is a concrete foundation with a basement depression. A 1941 two-door Chevy coupe is associated with a trash scatter of bottles, pieces of scrap metal and iron, machine-made bricks, and ironstone whiteware. The overall site area is 1,120 m².

LAKE SAKAKAWEA INVENTORY
NISHU PUBLIC USE AREA
Figure 6.1



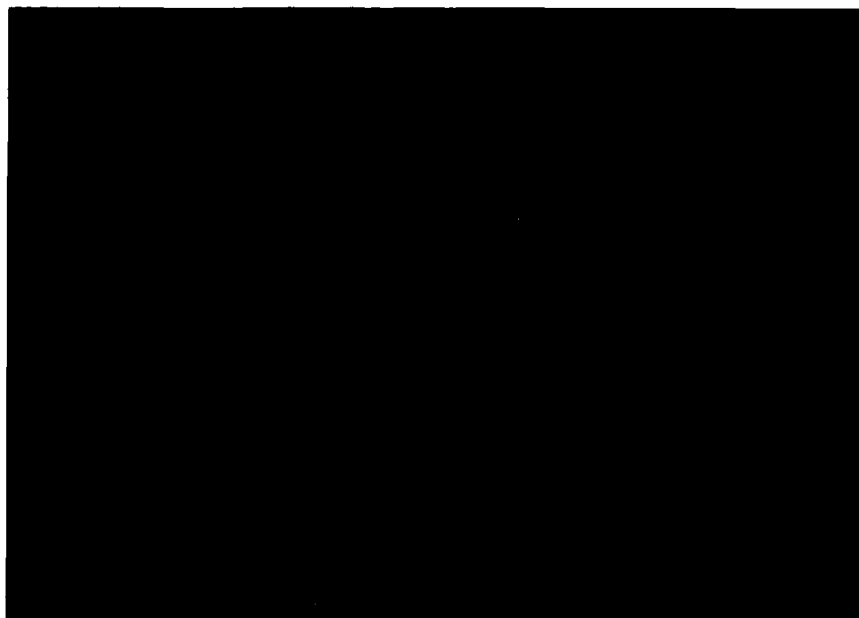
- Inventory Boundary
- Isolated Find
- Stone Circle
- ⋆ Stone Cairn
- Stone Alignment
- Concentrated Cultural Material
- Along Road
- == Scattered Cultural Material
- Along Road
- Mounds
- Corral

Numbered features at Site 32ML257 are described in text.

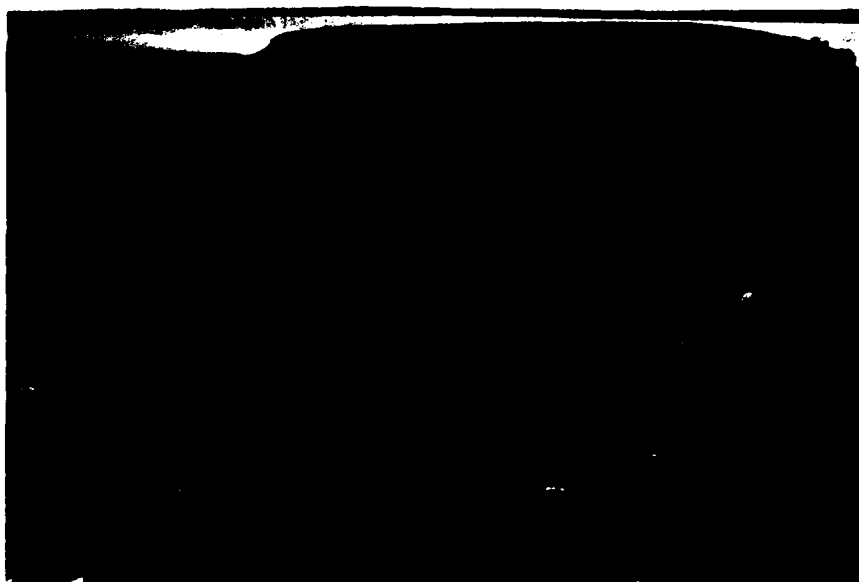


Contour Interval = 20 feet





North



South

LAKE SAKAKAWEA INVENTORY
SITE 32ML244 STONE CIRCLE
Figure 6.2

SL

Cultural Affiliation: The cultural affiliation of the prehistoric component is unknown. The historic component may relate to Native American Indian settlements on the Fort Berthold Indian Reservation.

Topographic Position: 32ML244 is located on the top of a narrow ridge extending into a small inlet north of the Missouri River channel. The ridge is flanked on either side by two intermittent drainages. These drainages were probably the nearest source of water, being located approximately 60 m to the southeast or southwest. The elevation of the site is 580 m above mean sea level. The ground visibility was recorded as 20% at the time of the inventory. The depth of the site remains unknown since no subsurface testing was done.

Condition: The condition of the site as currently observed was recorded as good: less than 25% of the site disturbed. Recreation traffic and grazing cattle are at a minimum in the area.

Integrity, Significance, and Management Recommendation: The stone circle at 32ML244 has integrity as currently observed in that the spatial arrangement of the stones appears undisturbed. The arrangement could ultimately provide information on site function(s) and settlement pattern(s). If present, any subsurface cultural materials or features at this site are also assumed to have integrity.

Although no historic structures remain standing at this site, the arrangement of the foundation and the contents of the trash scatter may provide clues to settlement patterns and site functions in the historic time period.

Based solely on the data collected during the inventory, the significance of the stone circle, cairns, and concrete foundation at 32ML244 cannot be determined. Since the known site area was assessed to have integrity, a potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork for the determination of significance is recommended. Current studies dealing with the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal

that answers concerning function, chronology, and cultural affiliation are incomplete and generally unsynthesized. Much of this situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements and mapping of circle and cairn sizes, stone size, stone placement, and stone depth; and testing for subsurface cultural materials.

In addition, a detailed map should be made of the historic foundation and a careful record made of the associated historic artifacts.

32ML245:

Site Type: Pit (Figure 6.3)

Description: 32ML245 is a possible eagle trap pit. The pit is marked by a depression measuring 2.00 m N-S x 1.75 m E-W. No other features or cultural materials were located in the pit or on the land surrounding the pit. No evidence of the superstructure of the covering for the pit was visible. The overall site area is just under 4 m².

Cultural Affiliation: Unknown

Topographic Position: The depression is located on the southwest-facing slope of a small knob. The knob is the current (because of flooding during the formation of Lake Sakakawea) westernmost terminus of west-northwest trending ridge. Before construction of Garrison Dam, the site must have overlooked the river breaks and floodplain of the Missouri River. The elevation of the site is 573 m above mean sea level. The ground visibility of the site at the time of the inventory was between 40%-60%. The nearest water would have probably been an intermittent drainage located approximately 80 m to the southeast. The depth of the site is unknown since no subsurface testing was done.



LAKE SAKAKAWEA INVENTORY
SITE 32ML245
EAGLE TRAPPING PIT
Figure 6.3

si

Condition: The condition of the site at the time of the inventory was assessed as good: less than 25% had been destroyed. The pit itself is in excellent condition. The wave action from Lake Sakakawea is eroding the cutbank 10 m to the south. Additional features on the site may have already been eroded away.

Integrity, Significance, and Management Recommendations: As we observed during the field investigation, the pit at 32ML245 has integrity, and the integrity does not appear disturbed. Vehicular access into the area is difficult, and cattle are not currently grazing.

The pit at 32ML245 could possibly be an eagle trapping pit. For this reason, this site is considered potentially significant in terms of the criteria (especially 30CFR60.6d) for nomination to the NRHP. The pit should be mapped in detail and testing, and the area around the pit should be examined more carefully.

32ML255

Site Type: Stone Circle (Figure 6.4)

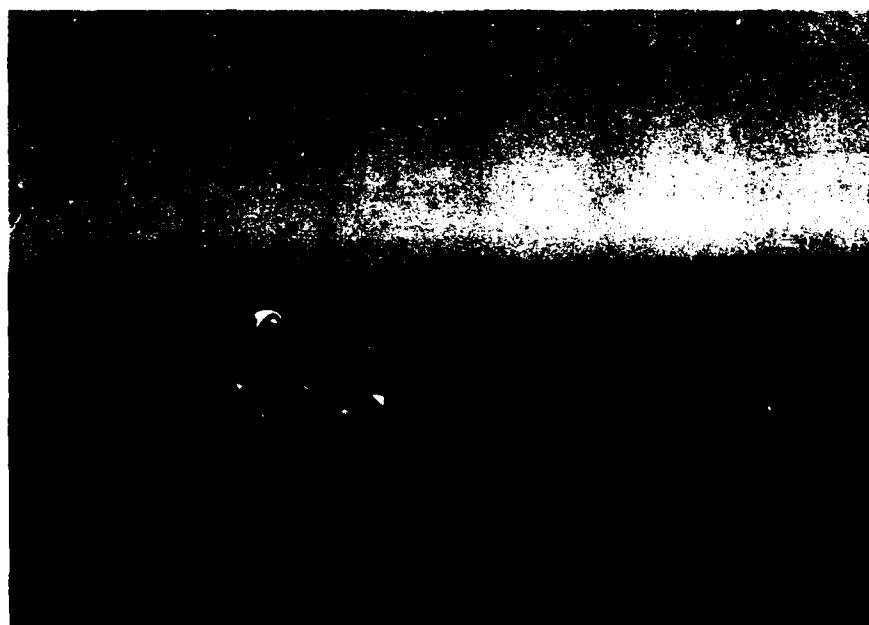
Description: 32ML255 is a single stone circle situated on the point of a low ridge, which is the current easternmost terminus of the Nishu Peninsula. The shoreline lies immediately east, and constant wave action is severely eroding the site area. The feature is a partial circle with approximately 49 perimeter stones and at least 11 stones in the east-central interior portion of the structure. The stones, which range between 20-30 cm in size, are a combination of cinder and glacial cobbles. The diameter of the remaining stones is approximately 6 m N-S x 2.5 m E-W. The overall site area is 15 m².

Cultural Affiliation: Unknown

Topographic Position: The partial circle is located on the top of a ridge at an elevation of 568 m above mean sea level. At the time of the inventory, the ground visibility was between 40%-60%. Before being flooded by



Southwest



East

LAKE SAKAKAWEA INVENTORY
 SITE 32ML255 STONE CIRCLE
 Figure 6.4

AI

Lake Sakakawea, there were probably intermittent drainages located by both the south and north of the ridge where the stone circle is located. The distance to either of these drainages would probably have been between 60-100 m. The depth of the site is unknown because it was not tested.

Condition: The condition of the site at the time of the inventory was assessed as poor: 50%-75% of the site disturbed. The site area is threatened by the imminent destruction of the stone circle by wave action. If other features were associated with this circle, they have already been destroyed.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses

and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML256

Site Type: Cultural Material Scatter (Figure 6.5)

Description: 32ML256 consists of a prehistoric cultural material scatter and a historic cultural material scatter. The artifacts are located on the slope of a hill and in the adjacent drainage. The density of historic artifacts along the side of the drainage suggests the use of this area as a trash dump. The overall area of the site is 4,200 m². The cultural material scatter is probably prehistoric and consists of an interior flake of Knife River Flint (0-20 mm in length, with unifacial retouch), a secondary flake of Knife River Flint (36 mm in length with unifacial retouch), one interior flake of white chert (18 mm in length), one biface of Knife River Flint, and two unifaces of Knife River Flint. The historic trash scatter at the site includes some whole glass bottles, broken glass, broken ceramics, portions of a grinding wheel, rusted metal, one small glass seed bead (blue), one porcelain toy doll, and numerous fragments of bone. Some of the bone, three sherds of the historic ceramics, one whole bottle, two fragments of historic glass, the porcelain doll, the glass bead, and a fragment of the grinding wheel were collected.

In addition to the historic trash scatter, four depressions and an old roadbed are visible. The function of the depressions is unknown. One depression is 8 m in diameter and 3 m deep. Two others are approximately 5 m in diameter and .70 cm deep. The fourth is approximately 1.5 m x



Southwest



Northwest

LAKE SAKAKAWEA INVENTORY
SITE 32ML256
PREHISTORIC AND HISTORIC
CULTURAL MATERIAL SCATTER
Figure 6.5

RI

50 cm. The age of the roadbed and the points of origin and destination are unknown.

Cultural Affiliation: The recovered biface is side-notched and is similar to those classed as Oxbow (Perino 1971:68, Plate 34). The cultural affiliation and age of the Oxbow points have been classed as within the Middle to Late Archaic (5,200 \pm 130 years B.P, Ibid:68). The whole bottle collected from the historic trash scatter has a continuous seam indicating that it was mold-manufactured. This suggests an occupation date of post-1918. Other artifacts (such as fragments of clear glass, some of the ceramic sherds, and the porcelain doll) suggest a mid-1900s date for the historic component.

Topographic Position: The site is located on the slope of a hill and in an adjacent drainage. The elevation of the site is 574 m above mean sea level. The ground surface visibility at the time of the inventory ranged between 40%-50%. The nearest water would be the intermittent drainage located 25 m to the west of depressions on the hill slope. This is the same drainage where many of the historic artifacts are located. The depth of the site is unknown since it was not tested.

Condition: At the time of the inventory, the condition of the site was assessed as good: less than 25% of the site disturbed. Recreation traffic and agricultural activities are low.

Integrity, Significance, and Management Recommendations: The site integrity at present appears to be relatively undisturbed. Recreation traffic and cattle grazing activities are low. The site has potential for offering further information on culture chronologies and adaptations in the Upland Grassland environment. As currently recorded, neither the pre-historic or historic components of the site have been sufficiently studied to make a recommendation of significance to the NRHP. It is recommended that such studies (mapping, surface collections, testing) be completed to determine eligibility .

32ML257

Site Type: Stone Circle and Other Rock Features (Figures 6.6 and 6.6a)

Description: 32ML257 consists of 22 stone circles, 3 stone cairns, and one extensive line of stone cairns, circles, and alignments. Occasional flakes of Knife River Flint are visible in disturbed soil areas. The stone features are described below. Most of the stones in the circles are glacial till cobbles. Some, however, are of cinder or Tongue River silicified sandstone. These are noted below also. The overall site area is 2,000,000 m².

- #1 Stone Circle - approximately 5.50 m in diameter, fragmentary, located near corral.
- #2 Stone Circle - N/S = 5.45 m, E/W = 4.80 m with 17 stones ranging in size from 15-40 cm, single-ring pattern, eroded on north side.
- #3 Stone Circle - N/S = 4.80 m, E/W = 4.85 m, double-ringed with approximately 53 stones ranging in size from 15-40 cm, 3 stones inside circle.
- #4 Stone Circle - N/S = 5.10 m, E/W = 5.25 m, double-ringed with 30 stones ranging in size from 10-40 cm.
- #5 Stone Circle - N/S = 4.0 m, E/W = 4.10 m, with approximately 18 stones, single-ringed; stones too buried for size measurements; some stones in center.
- #6 Stone Circle - N/S = 4.10 m, E/W = 4.25 m, single-ringed with 23 stones ranging in size from 20-40 cm; stones partially buried.
- #7 Stone Circle - N/S = 5.60 m, E/W = 5.6 m, double-ringed with 32 stones ranging in size from 20-40 cm; stones partially buried.



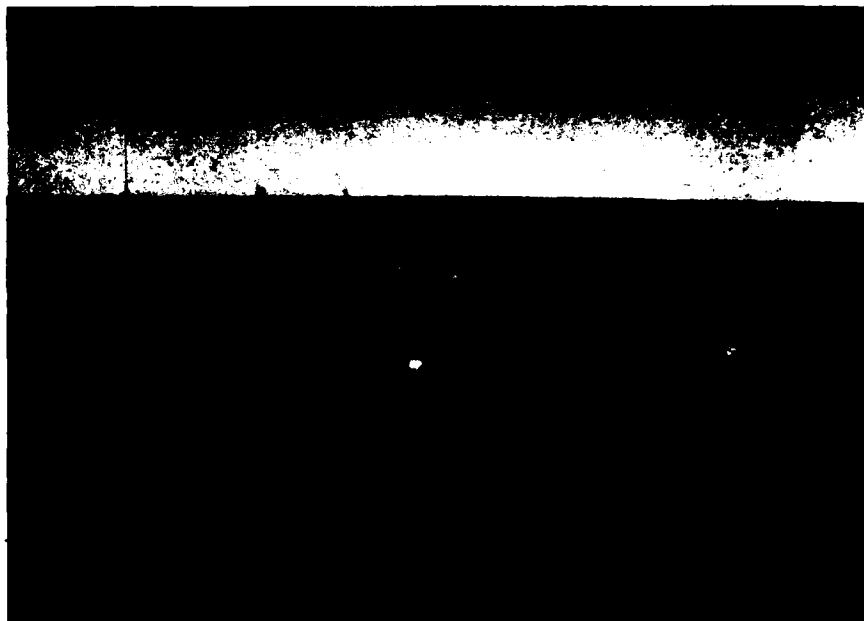
STONE CIRCLE



LINEAR STONE ALIGNMENT

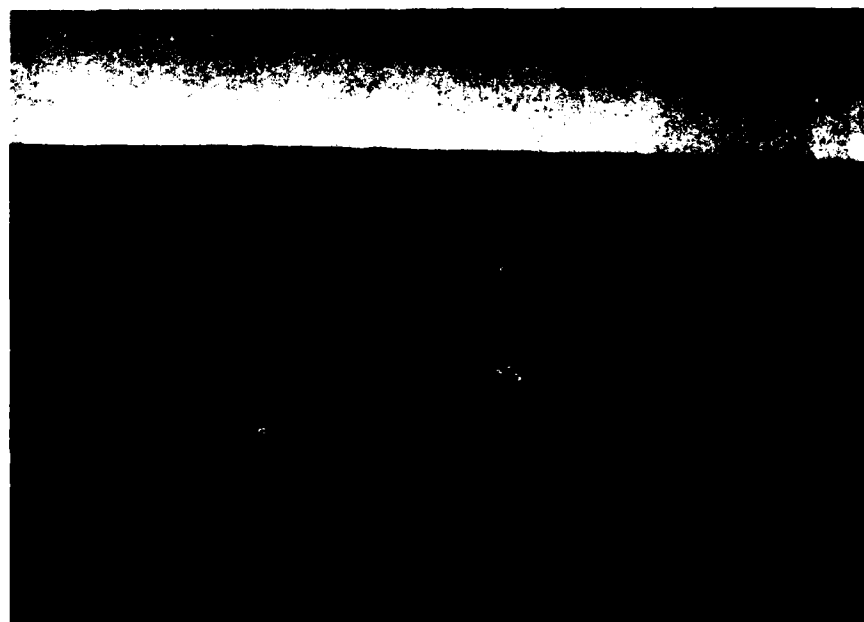
LAKE SAKAKAWEA INVENTORY
 SITE 32ML257
 STONE CIRCLES AND LINEAR STONE
 ALIGNMENTS
 Figure 6.6

SL



LINEAR ALIGNMENT

Northwest



LINEAR ALIGNMENT

LAKE SAKAKAWEA INVENTORY
SITE 32ML257
STONE CIRCLES AND LINEAR STONE
ALIGNMENTS
Figure 6.6a



- #8 Stone Circle - N/S = 5.45 m, E/W = 5.35 m with 52 stones ranging in size from 20-40 cm; 3 stones in center portion of circle.
- #9 Stone Circle - N/S = 5.90 m, E/W = 5.20 m with 60 stones around perimeter, 1 stone in center, SE portion of circle double-ringed, rest of circle single-ringed, stones range in size from 20-30 cm.
- #10 Stone Circle - N/S = 4.80 m, E/W = 4.20 m, with 18 stones ranging in size from 10-50 cm, primary flake of Knife River Flint found at edge of circle.
- #11 Stone Circle - N/S = 5.65 m, E/W = 5.10 m, double-ringed with 57 stones ranging in size from 10-40 cm, 3 stones inside circle.
- #12 Stone Circle - N/S = 6.50 m, E/W = 6.80 m, double-ringed with 56 stones ranging in size from 15-30 cm, 1 stone inside circle.
- #13 Stone Circle - N/S = 4.40 m, E/W = 4.50 m, single-ringed with 19 stones ranging in size from 10-30 cm, stones well buried, 1 cinder stone.
- #14 Stone Circle - N/S = ~ 5.90 m, E/W = 6.0 m, double-ringed with 28 stones ranging in size from 10-30 cm; NW portion of circle is missing.
- #15 Stone Circle - N/S = 6.40 m, E/W = 6.20 m, double-ringed with 56 stones ranging in size from 10-45 cm.
- #16 Partial Stone Circle - N/S = ~ 4.30 m, E/W = 4.60 m, 13 stones ranging in size from 10-30 cm, northern portion eroded.
- #17 Stone Circle - N/S = 5.20 m, E/W = 5.15 m, single-ringed with 37 stones ranging in size from 15-30 cm, central portion disturbed by depressions, function of depressions unknown, some cinder stone present.

#18 Stone Circle - N/S = 6.40 m, E/W = 6.0 m, double-ringed with 60 stones ranging in size from 10-45 cm, 3 stones inside circle, disturbed by erosion.

#19 Stone Circle - N/S = 5.80 m, E/W = 6.60 m with 29 cobbles ranging in size from 15-40 cm.

Stone Circles #18 and 19 may have shared a portion of the circle in common.

#20 Stone Cairn - ~ 1 m x 1 m, 6-8 stones ranging in size from 10-35 cm.

#21 Stone Circle - N/S = 6.20 m, E/W = 6.90 m, double-ringed stone circle with 48 stones ranging in size from 15-35 cm; some of the stones are Tongue River Silica.

#22 Stone Cairn - 1.5 m x 1.5 m with 13 stones ranging in size 10-40 cm.

#23 Partial Stone Circle - ~ 5 m x 5 m with 17 stones, some of the stones being cinder.

#24 Stone Circle - N/S = 6.90 m, E/W = 6.45 m, double-ringed with 51 stones ranging in size from 15-35 cm.

#25 Stone Cairn - 2 m x 1.5 m with 13 stones.

#26 Stone Cairn - 2.5 m x 1.5 m with 25 cobbles ranging in size from 15-45 cm.

#27 The extensive line of stone cairns and linear alignments are located along the top of a low ridge crest. The line is approximately 1,000-1,300 m in length. There are 18 recognizable stone cairns and 3 linear stone alignments. There are seven stone circles (complete and partial) interspersed throughout the line. Noticeable breaks occur in the line at the heads of small drainages taking off from the

ridge crest. Glacial till is abundant on the ridge crest and, at times, it is difficult to distinguish the cultural features from natural stone piles. The cultural stone piles could have been incorporated quite easily into the natural stones to make a fairly continuous line. The function of this particular line of features is unknown. The functions of similar stone feature lines have been postulated as trail markers, boundary or resource markers, and game lines.

Topographic Position: Most of the stone circles and cairns are located on the top of level or gently sloping broad ridges. The extensive line of stone cairns, circles, and linear arrangements is located along the top of a long and prominent narrow ridge crest. The lowest elevation of a feature on the site is 566; the highest is 600. The average elevation is 583. The ground visibility at the time of the inventory ranged between 40%-70%. For a site this large, the nearest sources of water are numerous. Most sources are intermittent drainages, some flowing into what is now Nishu Bay on the east and some into the Missouri River on the west and south. Distances to water would have ranged from one hundred to several hundred meters. The depth of the site is unknown since it was not tested.

Condition: At the time of the inventory, the condition of the site was assessed as good: less than 25% of the site destroyed. Most of the stone features are well preserved. At present, the only access to the area is via a four-wheel-drive, two-rut road or boat. Therefore, both recreation and agriculture activities are currently limited. A nearby corral and the presence of cattle elsewhere on Nishu Peninsula suggest the site area may have been grazed at one point in time.

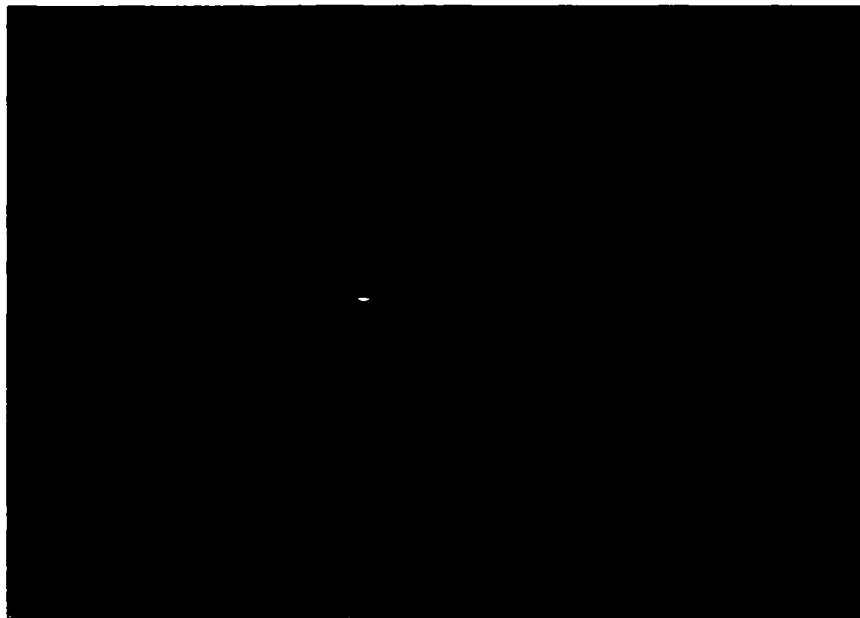
Integrity, Significance, and Management Recommendations: The stone circle cairns, and linear alignments at 32ML257 have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the

arrangements of stones at 32ML257 are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. This resource is recommended as potentially significant for nomination to the NRHP for several reasons. These reasons include the large number and diversity of stone features, their well-preserved integrity, and the fact that extensive buried cultural materials are known to be present on Nishu Peninsula. The stone features require additional surface investigations for associated artifacts, more extensive and detailed surface mapping, and testing for buried cultural materials and/or features.

32ML258

Site Type: Earthworks (Figure 6.7)

Description: 32ML258 consists of two linear mounds. One of the mounds is oriented E-W, the other (at an angle 195° off magnetic north). A two-rut road truncates the NE-SW mound on the southwest edge. The overall site area is $2,106 \text{ m}^2$. The mound oriented E-W is approximately 122 m long and 13 m wide. On the east end of this mound, there is a concentration of glacial cobbles. The cobbles are well sodded. Eight stones occur in one grouping approximately $1 \text{ m} \times 1 \text{ m}$; three additional stones appear to be displaced from this grouping. The mound oriented NE-SW is approximately 40 m long and 13 m wide. There is a distance of approximately 6 m between the two mounds. Both of the mounds rise about 15 cm above the level of the surrounding ground surface. Cultural material (Knife River Flint flakes and debitage shatter) was found eroding out of the truncated portion of the NE-SW oriented mound. On August 2, 1982, the mounds were field checked and tested. A shovel test hole was placed in the smaller mound at approximately 30 m from the road and 6 m south of the north edge of the mound. From ground surface to caliche base, the pit measured 0-40 cm. Artifacts of Knife River Flint were found throughout the soil. These artifacts include 2 secondary flakes, 12 interior flakes and flake fragments, and 7 pieces of debitage and/or chunks. The two secondary flakes are small (0-10 cm) and appear to be thinning flakes. Five of the interior flakes are also small (0-10 cm) and are also thinning flakes.



Northeast



West

LAKE SAKAKAWEA INVENTORY
SITE 32ML258
LINEAR EARTHEN MOUNDS
Figure 6.7

SI

With the exception of debitage pieces, none of the artifacts show any evidence of patination. A second shovel test pit was dug approximately nine meters north of the first test pit. This distance placed the test hole off the mound. The second test pit was 0-25 cm in depth from ground surface level to the caliche base. As was evident in the first test pit, artifacts of Knife River Flint were found throughout. A total of nine artifacts were recovered from this test pit including one secondary flake, seven interior flakes, and one debitage. Four of the flakes are again small (10-15 cm in length) and appear to be thinning flakes. Four of the artifacts exhibit patination. The soil in both test pits appeared to be the same fine grey-brown loam.

Cultural Affiliation: Possibly Woodland (A.D. 0-900)

Topographic Position: The two linear mounds are located on a gently sloping hilltop on Nishu Peninsula. The elevation of the site is approximately 598 m above mean sea level. The surface visibility at the time of the inventory ranged between 40%-60%. The nearest source of water would have been one of several intermittent drainages emptying into Nishu Bay. These drainages are located approximately 175-200 m to the east and northeast. The depth of the mounds, as evidenced by the shovel test, is between 0-40 cm.

Condition: The condition of the site at the time of the inventory was assessed as good: less than 25% of the site is destroyed. The only access to the site is via the road or by boat. The road is best traveled with a four-wheel-drive vehicle, and boaters would have to hike to the site. An abandoned corral, and the presence of cattle elsewhere on Nishu Peninsula suggest that the area may have been grazed at one point in time, but no cattle are currently grazing.

Integrity, Significance, and Management Recommendations: The linear mounds at 32ML258 are assessed to have integrity. Further, the site is recommended as eligible to the NRHP. The mounds should be mapped in detail and the associated artifacts inventoried. Any increase of adverse impacts, especially any dirtwork, should be reported to the U.S. Army

Corps of Engineers immediately. The linear mounds should be avoided at all costs.

6.1.2 National Guard Recreation Area

The National Guard Recreation Area is located in McLean County within Township 148N, Range 85W and Township 148N, Range 86W. A total of 17 sites and 1 isolated find were identified during the inventory (Figure 6.8). Sixteen of those identified are stone circle sites; the remaining sites are rectangular stone alignments. The isolated find (IF 205) is a side-notched biface of Knife River Flint. The exact cultural affiliation is unknown, but the biface probably date after the Archaic and within either the Woodland (A.D. 0-900) or the Plains Village (A.D. 900-1862) cultural periods.

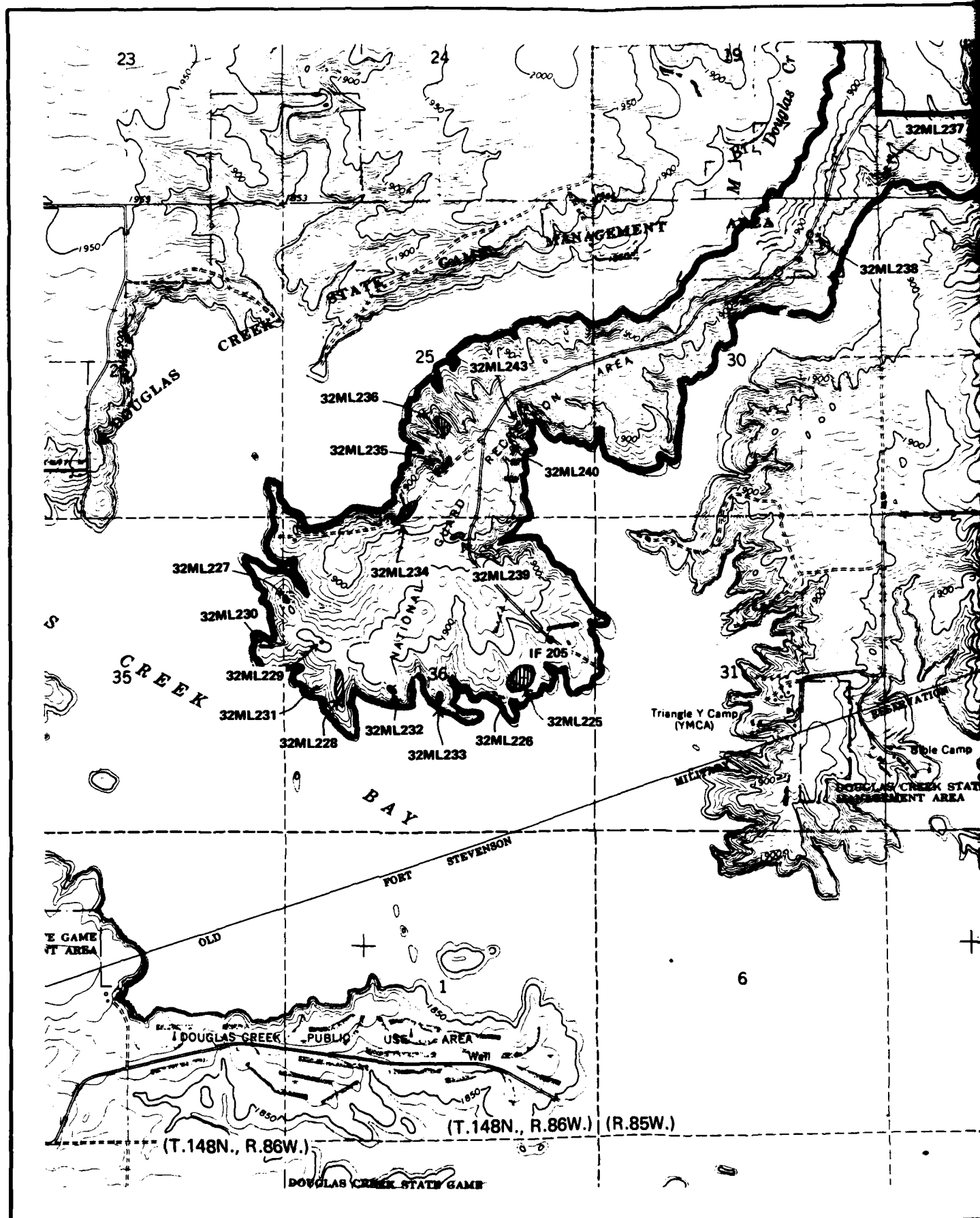
32ML225

Site Type: Stone Circles and Other Rock Features (Figure 6.9)


Description: The site consists of six stone circles and two cairns. Stone Circle #1 consists of 14 stones and measures 3.25 m N-S and 3.6 m E-W. Stone Circle #2 is composed of 11 stones and measures 2.75 m N-S by 4.15 E-W. Stone Circle #3 consists of 15 stones and measures 4.0 N-S by 3.4 m E-W. Stone Circle #4 is made of 35 stones and measures 4.75 m N-S by 4.8 m E-W. Stone Circle #5 is a partial circle of 37 stones and measures 4.6 m N-S by 4.1 m E-W. Stone Circle #6 consists of 42 stones and measures 4.6 m N-S by 4.1 m E-W. Cairns #1 and #2 are 1.2 m x 1.5 m and 1.35 m x 1.4 m respectively. No cultural materials were observed. The overall site area is 14,400 m²

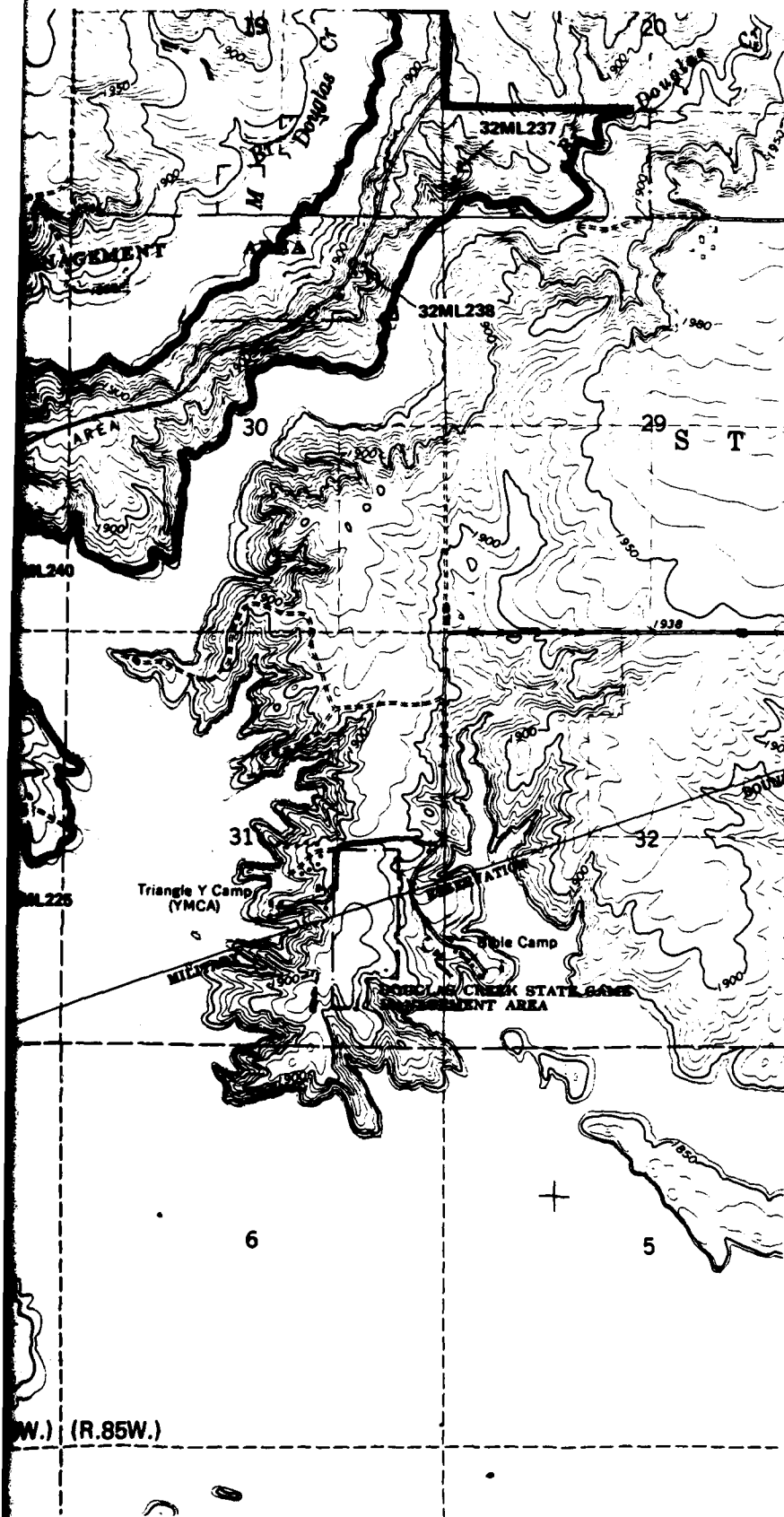
Cultural Affiliation: Unknown

Topographic Position: The stone circles are located on a small ridge adjacent to an intermittent drainage. The elevation of the site is 572 m AMSL. Ground surface visibility was 20%-40%, with the nearest permanent water the Missouri River, 5,770 m to the southeast. Depth of the site is unknown; no subsurface testing was undertaken.



LAKE SAKAKAWEA INVENTORY
NATIONAL GUARD RECREATION AREA
Figure 6.8

-  Inventory Boundary
-  Site
-  Isolated Find
-  Tree Break



0 .5 1 kilometer

0 .5 1 mile

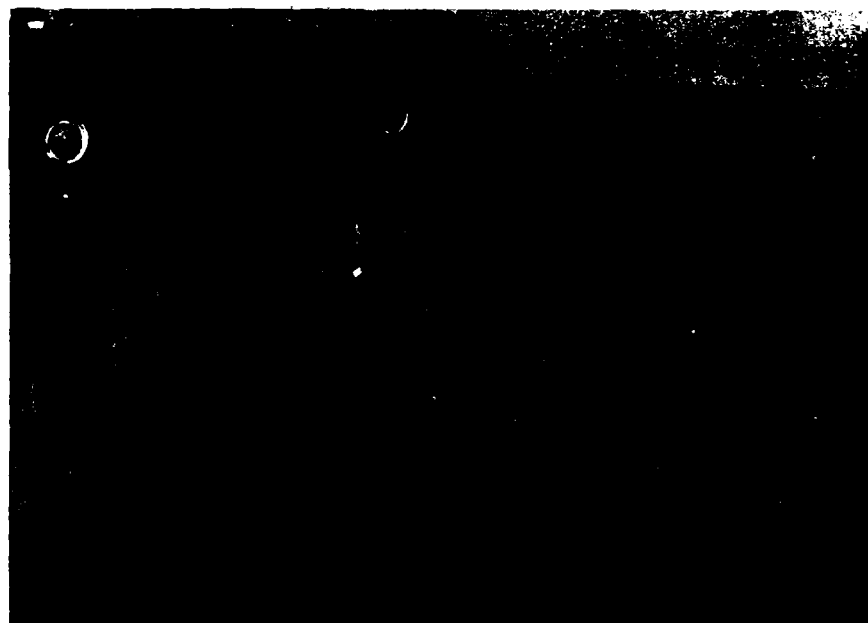
Contour Interval = 20 feet



SL



East



Northwest

LAKE SAKAKAWEA INVENTORY
SITE 32ML225 STONE CIRCLES
Figure 6.9



Condition: Condition of the site at the time of the inventory was considered to be poor: 50%-75% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural

materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML226

Site Type: Stone Circle and Other Rock Features (Figure 6.10)

Description: The site contains a single stone circle and two small cairns. The N-S axis of the stone circle is 4.5 m; the E-W axis is 5.3 m. Approximately 46 stones are visible; all are sodded in and have moss on the surface. Cairn #1 measures 1.3 m N-S x 0.75 m E-W. Cairn #2 measures 1.24 m N-S x 0.68 m E-W. No cultural materials were observed. The overall site area is 110 m².

Cultural Affiliation: Unknown

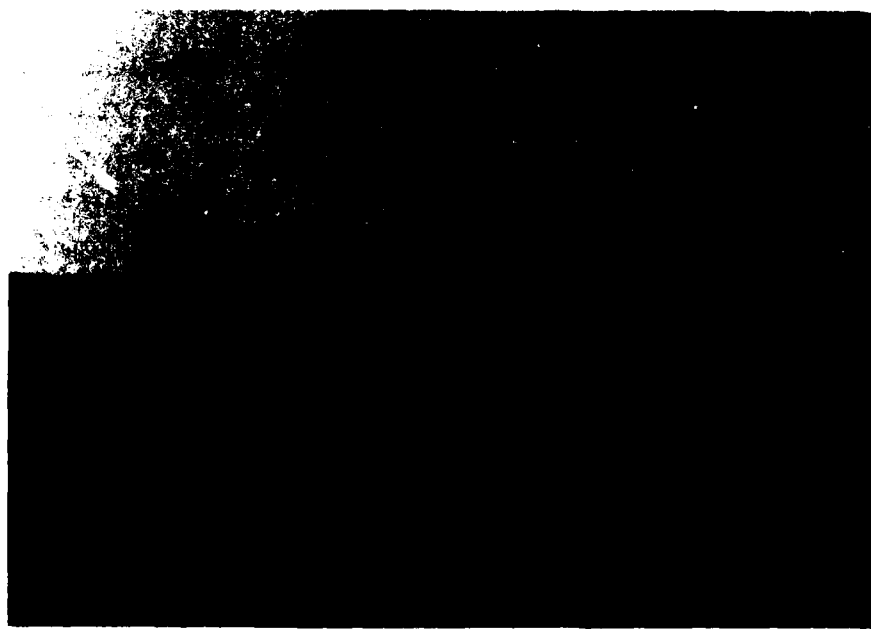
Topographic Position: The site lies on a grassland ridge overlooking Douglas Creek Bay. The elevation of the site is 571 m AMSL. The ground surface visibility at the site is 20%-40%. The nearest water is a seasonal stream 800 m northwest of the site. The Missouri River is the nearest permanent water, 5,740 m southeast. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: Condition of the site at the time of inventory was considered to be poor: 50%-75% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were



Southwest



Northwest

LAKE SAKAKAWEA INVENTORY
SITE 32ML226 STONE CIRCLE
Figure 6.10

RI

abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

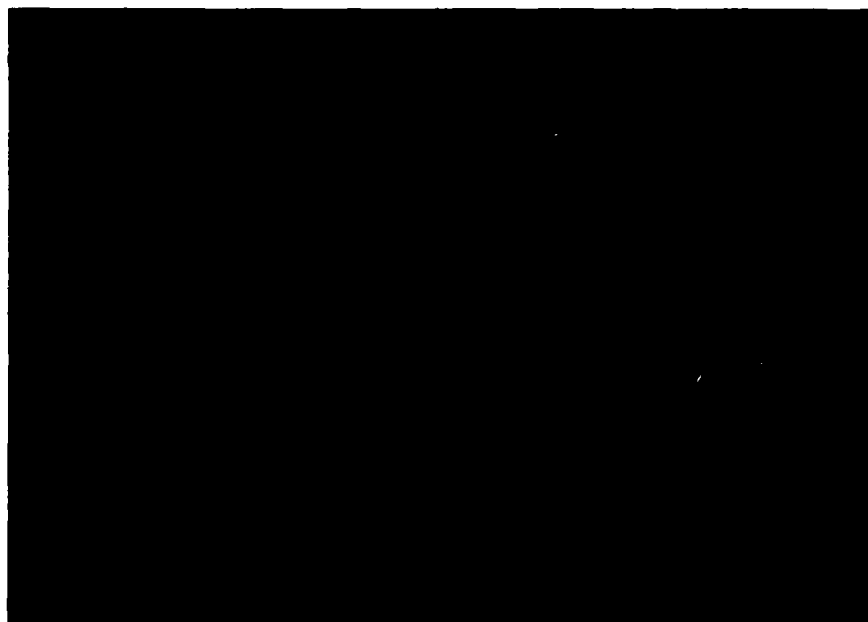
32ML227

Site Type: Stone Circles and Other Rock Features (Figure 6.11)

Description: The site contains two stone circles and one stone cairn. Stone Circle #1 is composed of at least 65 stones. The N-S axis is 4.5 m; the E-W axis is 5 m. Four stones, set in a configuration 1 m x 1 m, make



North



North

LAKE SAKAKAWEA INVENTORY
SITE 32ML227 STONE CIRCLES
Figure 6.11

SL

up the cairn. Stone Circle #2 is made up of 34 stones and is 4 m x 4 m. The overall site area is 0.25 m².

Cultural Affiliation: Unknown

Topographic Position: The site is located at a gravel quarry on a ridge-top with a deep drainage to the NE. The elevation of the site is 578 m AMSL. The ground surface visibility is 20%-40%. The nearest water source is a stream, 120 m NE, a tributary to the Missouri River, 6,560 m south-east. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be very poor: more than 75% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is

recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML228

Site Type: Stone Circles and Other Rock Features (Figure 6.12)

Description: Site consists of 14 stone circles, 1 stone cairn, and 1 Knife River Flint secondary flake fragment. The dimensions and number of stones per circle are as follows:

<u>Stone Circle #</u>	<u>North-South Axis</u>	<u>East-West Axis</u>	<u># Stones</u>
SC-1	4.3 m	4.5 m	38
SC-2	4.3 m	5.0 m	47
SC-3	5.6 m	4.7 m	26
SC-4	6.0 m	6.4 m	48
SC-5	6.3 m	5.4 m	43
SC-6	5.4 m	4.5 m	46
SC-7	8.0 m	6.0 m	38
SC-8	4.0 m	4.0 m	27
SC-9	6.1 m	6.5 m	69



West



East

LAKE SAKAKAWEA INVENTORY
SITE 32ML228 STONE CIRCLES
Figure 6.12

si

<u>Stone Circle #</u>	<u>North-South Axis</u>	<u>East-West Axis</u>	<u># Stones</u>
SC-10	4.5 m	4.3 m	48
SC-11	7.0 m	7.7 m	71
SC-12	6.6 m	6.8 m	60
SC-13	5.2 m	5.5 m	53
SC-14	7.6 m	7.2 m	66
Cairn 1	1.6 m	1.2 m	6

One Knife River secondary flake fragment was found in the road which runs north-south through the site. The overall site area is 12,375 m².

Cultural Affiliation: Unknown

Topographic Position: The site is located on a ridgetop which fingers south into Douglas Creek Bay. The elevation is 575 m AMSL. Ground surface visibility at the time of the inventory was 30%-50%. The nearest water source is an intermittent stream 33 m east. The Missouri River lies 5,980 m to the southeast. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: Condition of the site at the time of inventory was considered to be poor: 50%-75% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea,

recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

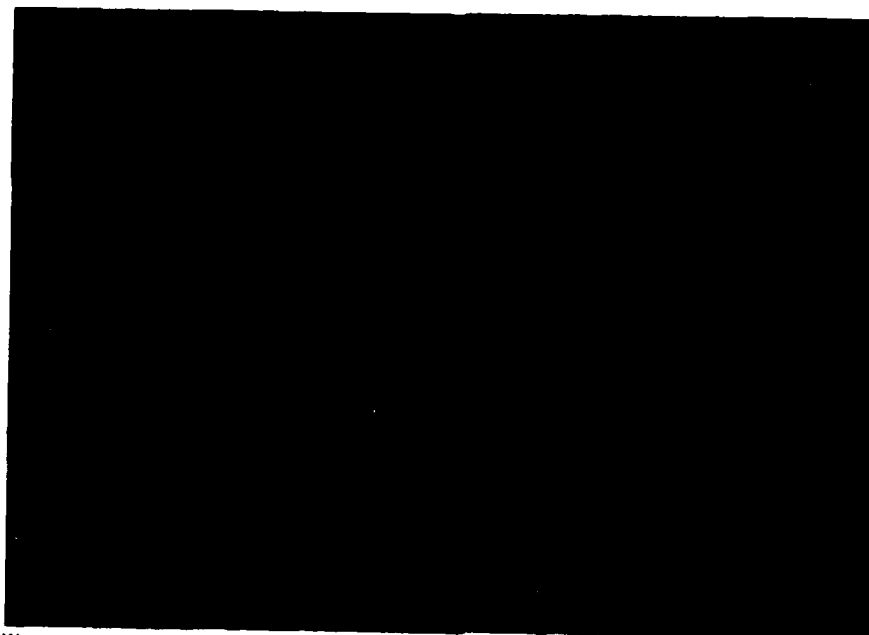
The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML229

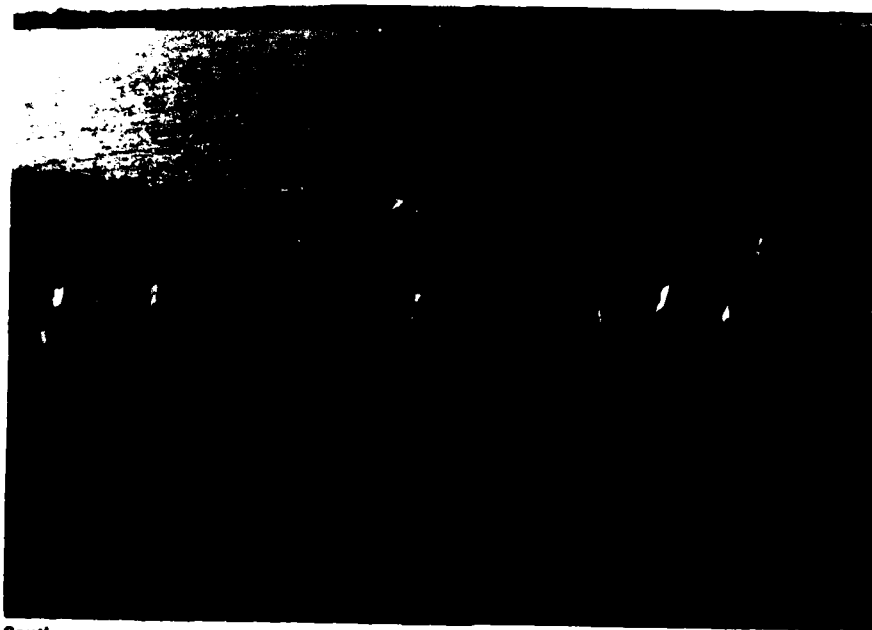
Site Type: Stone Circle (Figure 6.13)

Description: The site is composed of one stone circle measuring 5 m x 5 m and one flake of Knife River Flint (primary). The overall site area is 25 m².

Cultural Affiliation: Unknown



West



South

LAKE SAKAKAWEA INVENTORY
SITE 32ML229 STONE CIRCLES
Figure 6.13

RI

Topographic Position: The site is located on the top of a large grassland ridge. A large intermittent drainage is located 150 m just to the NW. The Missouri River is 6,300 m SE. The elevation of the site is 581 m. Ground surface visibility during the inventory was considered 30%-50%. Depth of the site is unknown since subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be excellent: the site is relatively undisturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned

(for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML230

Site Type: Stone Circles (Figure 6.14)

Description: The site consists of two stone circles and one flake of Knife River Flint. Stone Circle #1 consists of at least 37 stones and is 5.8 m N-S x 5.9 m E-W. Stone Circle #2 is made up of at least 26 stones and is 5.4 m N-S x 5.5 m E-W. One secondary flake of Knife River Flint was found in the road at 86° from datum. The overall site area is 510 m².

Cultural Affiliation: Unknown

Topographic Position: The site is located on a large grassy ridge next to a small intermittent drainage. The elevation of the site is 575 m; the ground surface visibility during the inventory was 30%-50%; the nearest water source is an intermittent drainage 60 m NE. The Missouri River lies 6,380 m SE of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be fair: 25%-50% of the site has been destroyed. Present disturbances probably are due chiefly due to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.



Southeast



East

LAKE SAKAKAWEA INVENTORY
SITE 32ML230 STONE CIRCLES
Figure 6.14

SI

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML231

Site Type: Other Rock Features (Figure 6.15)

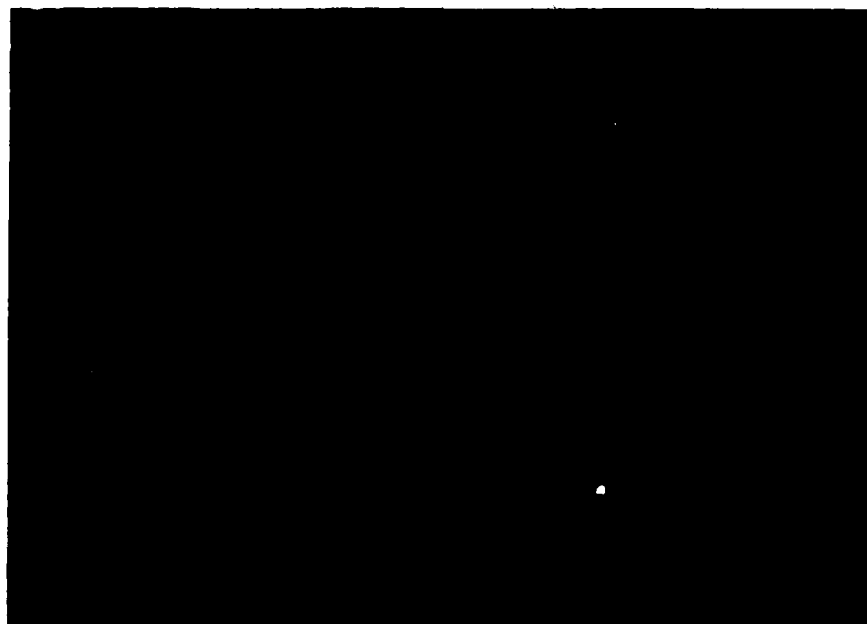
Description: This site consists of approximately five distinct sets of linear stone alignments. All alignments are oriented roughly NW-SE. The alignments are composed of at least 100 separate stones. The overall site size is 110 m².

Cultural Affiliation: Unknown

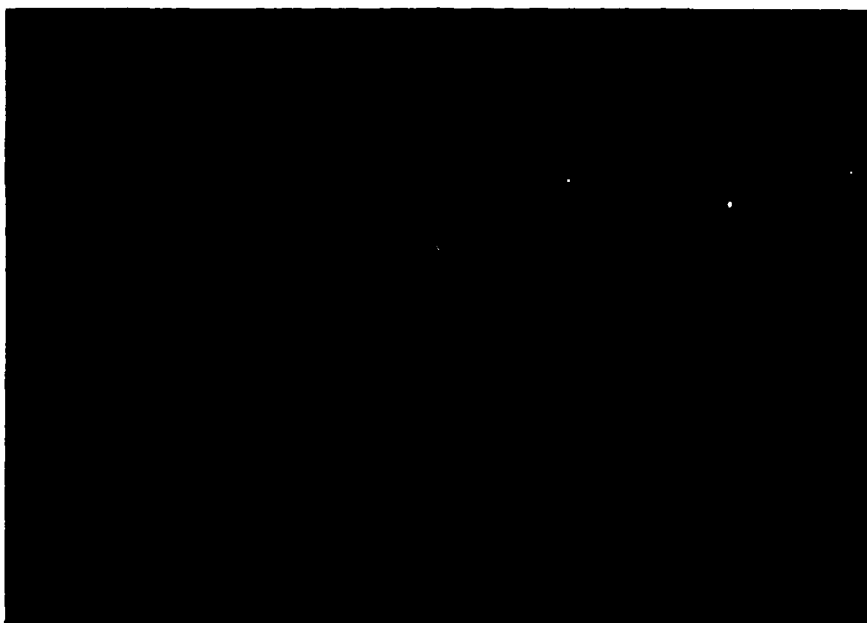
Topographic Position: The site is located on a low knoll created by drainage incision to the NE, north, and south. The elevation of the site is 572 m AMSL. Ground surface visibility at the time of inventory was 20%-40%. The nearest water source is an intermittent drainage approximately 15 m both NW and SE of the site. The Missouri River lies 6,080 m to the SE. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be poor: 50%-75% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.



Southwest



Northwest

LAKE SAKAKAWEA INVENTORY
SITE 32ML231
LINEAR STONE ALIGNMENTS
Figure 6.15



circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML232

Site Type: Stone Circles (Figure 6.16)

Description: The site consists of four stone circles. Circle #1 is a double ring of 35 large stones measuring 5.6 m at the N-S axis and 5.5 m at the E-W axis. Circle #2 is disturbed with the main axis running E-W at



West



North

LAKE SAKAKAWEA INVENTORY
SITE 32ML232 STONE CIRCLES
Figure 6.16

si

approximately 5.5 m. It is composed of approximately 20 stones. Circle #3 is a double ring of 32 stones, 4.7 m N-S and 4.6 m E-W. Circle #4 is a heavily disturbed circle of 16 rocks approximately 3.4 m N-S and 3.3 m E-W. The northern portion is intact. The overall site size is 2,600 m².

Cultural Affiliation: Unknown

Topographic Position: The site is located on the southern slope of a relative small ridge finger at the southern end of a National Guard Recreational Area. The elevation of the site is 577 m AMSL. Ground disturbance at the time of inventory was 10%-30%. The nearest water source is an intermittent drainage 90 m from the site, and the Missouri River is 5,860 m to the SE. Depth of the site is unknown since subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be good: less than 25% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML233

Site Type: Stone Circles and Other Rock Features (Figure 6.17)

Description: The site is composed of two stone circles and one stone cairn. Stone Circle #1 is a double ring composed of 40 stones 4.4 m N-S x 4.4 m E-W. The size of the stones ranges from 10-25 cm. Stone Circle #2 is 5 m N-S x 4.4 m E-W. It is also a double ring composed of 40 stones ranging from 10-25 cm, with several being larger. The stone cairn is approximately 3.5 m at the NE-SW axis and is composed of 20 stones. The overall site area is 2,800 m².



West



North

LAKE SAKAKAWEA INVENTORY
SITE 32ML233 STONE CIRCLES
Figure 6.17

SL

Cultural Affiliation: Unknown

Topographic Position: The site is located on a sloping ridge which fingers south into Douglas Creek Bay. Elevation of the site is 575 m; the ground surface visibility at the time of inventory was 10%-20%. The nearest source of water is an intermittent drainage 100 m NE of the site. The Missouri River lies 5,800 m SE of the site. Depth of the site is unknown since subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be good: less than 25% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and

cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML234

Site Type: Stone Circles and Other Rock Features (Figure 6.18)

Description: The site consists of two stone circles with six associated cairns. Two artifacts were located within the site. Stone Circle #1 is 5.4 m at its N-S axis and 5 m E-W. It is composed of 45 stones ranging in size from 10-25 cm. Stone Circle #2 is 5.15 m N-S x 4.90 m E-W. It is double-ringed with ~ 46 stones ranging from 10-30 cm. This circle has one stone in the center. Data on the stone cairns is as follows: Cairn #1 has 11 stones and is ~ 2 m x 1 m in diameter; Cairn #2 has 12 stones and is ~ 1.5 m x 1 m in diameter; Cairn #3 has 7 stones and is ~ 1 m in diameter; Cairn #4 has 7 stones and is ~ 1 m in diameter; Cairn #5 has 7 stones and is ~ 1 m in diameter; and Cairn #6 has 8 stones and is ~ 1 m in diameter. (1) purple-white chert pebble tool with unifacial retouch and possible utilization and (2) one piece of Knife River Flint debitage. The overall site area is 7,200 m².

Cultural Affiliation: Unknown

Topographic Position: The site is located on a ridgetop, intersected by an intermittent drainage and a two-track road, in the south-central



West

LAKE SAKAKAWEA INVENTORY
SITE 32ML234 STONE CIRCLES
Figure 6.18

SI

portion of a National Guard Recreation Area. The elevation of the site is 586 m AMSL. The ground surface visibility at the time of inventory was 10%-20%. The nearest water source is an intermittent drainage 100 m NE of the site datum. The Missouri River lies 6,680 m to the SE. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be poor: 50%-75% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned

(for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML235

Site Type: Stone Circles and Other Rock Features (no site photograph)

Description: The site is composed of five stone circles, one of which is double-ringed, and one cairn of eight rocks measuring 1.3 m x 1 m. Stone Circle #1 is a double ring of 41 stones with a N-S axis of 5.24 m and E-W axis of 4.9 m. Stone Circle #2 measures 4.5 m N-S x 5 m E-W and contains 32 stones. Stone Circle #3 is 4.1 m N-S x 3.6 m E-W and contains 34 stones. Stone Circle #4 is 4.5 m N-S x 4.6 m E-W and is composed of 26 stones. Stone Circle #5 has 17 stones, two of which are located in the center of the circle. It measures 3.5 m N-S x 4.3 m E-W. The overall site area is 4,725 m².

Cultural Affiliation: Unknown

Topographic Position: The site is located on the NW edge of a large grassland ridge overlooking Middle Douglas Creek. The elevation of the site is 585 m AMSL. The ground surface visibility at the time of inventory was considered to be 0%-10%. The nearest source of water is an intermittent stream 20 m NE of the site. The Missouri River is 6,860 m to the SE. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be fair: 25%-50% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment;

detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML236

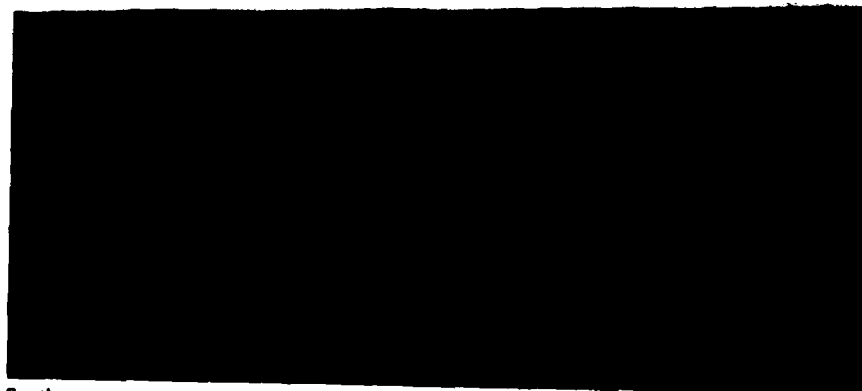
Site Type: Stone Circles (Figure 6.19)

Description: The site consists of six stone circles and one partial circle. Stone Circle #1 is 5 m N-S x 4 m E-W and contains 53 stones. Stone Circle #2 is 5 m N-S x 4.5 m E-W and contains 20 stones. Stone Circle #3 is 4 m N-S x 4 m E-W and contains 31 stones. Stone Circle #4 is 5 m N-S x 4 m E-W and is composed of 36 stones. Stone Circle #5 is a partial circle consisting of 13 stones and measures 5 m x 4 m E-W. Stone Circle #6 contains 51 stones, of which five are located in the center. It measures 7 m N-S x 4 m E-W. Stone Circle #7 is 5 m x 5 m and contains 30 stones. No cultural materials were observed. The overall site area is 6,600 m².

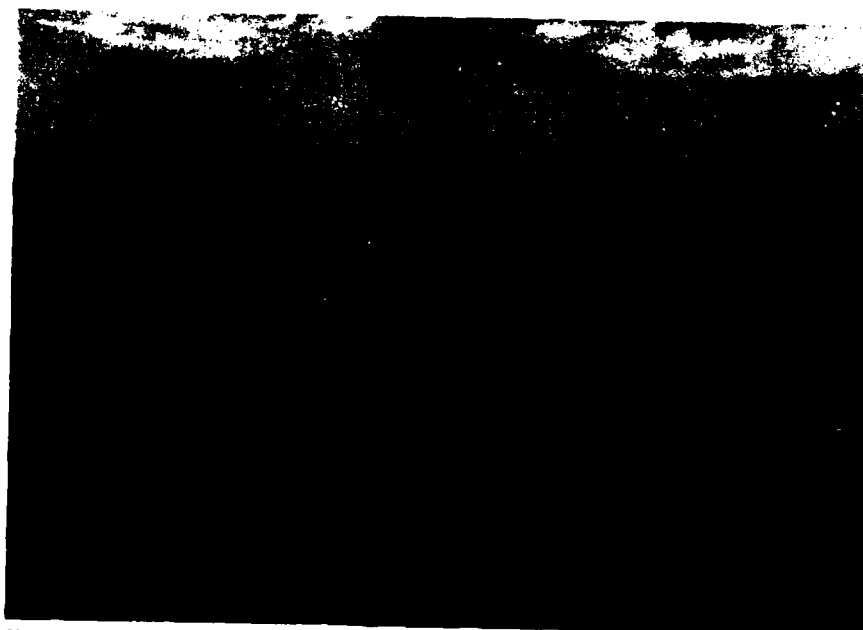
Cultural Affiliation: Unknown

Topographic Position: The site is located on a sloping ridge overlooking Middle Douglas Creek. The elevation of the site is 588 m AMSL. Ground surface visibility at the time of inventory was 40%. The nearest water source is an intermittent drainage 30 m NE and SW of the site. The Missouri River is 6,600 m to the SE. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be fair: 25%-50% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.



South



Northwest

LAKE SAKAKAWEA INVENTORY
SITE 32ML236 STONE CIRCLES
Figure 6.19

SI

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML237

Site Type: Stone Circle (Figure 6.20)

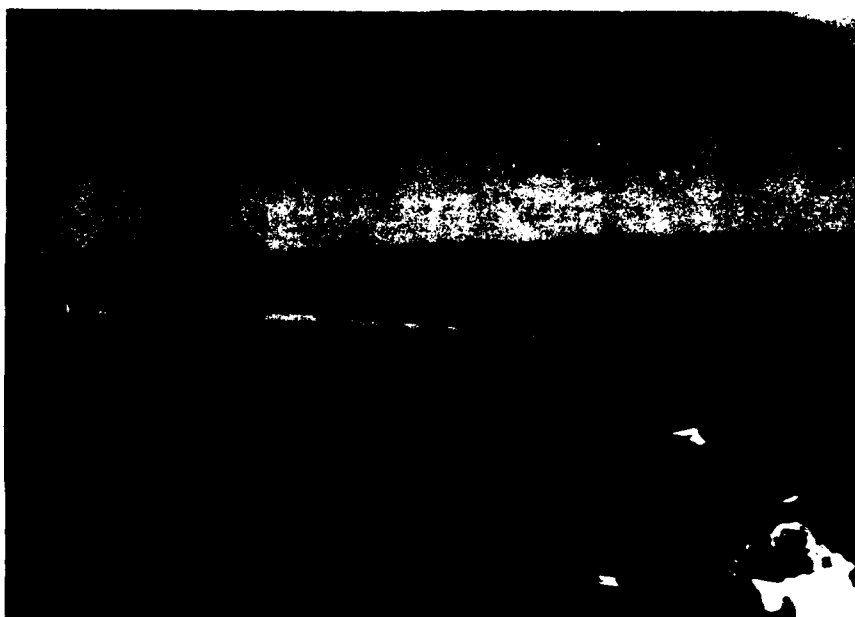
Description: The site consists of one large, substantial circle. It is bounded on the west by a fence. Stone circle is 7.5 m N-S 7.5 m E-W. No cultural materials were observed. The overall site area is 56 m².

Cultural Affiliation: Unknown

Topographic Position: The site is located on a ridge slope overlooking the east branch of Douglas Creek. The site elevation is 589 m AMSL. Ground surface visibility during the inventory was 0%-30%. The nearest water source is a permanent stream 100 m east of the site. The Missouri River lies 7,540 m SE of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be good: less than 25% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.



East

LAKE SAKAKAWEA INVENTORY
SITE 32ML237 STONE CIRCLE
Figure 6.20

RI

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML238

Site Type: Stone Circle and Other Rock Features (Figure 6.21)

Description: The site consists of one stone circle and one cairn. The circle is two to three stones in thickness, eroding to the north and measures 7 m N-S x 6 m E-W with 75 stones exposed. The cairn measures 1.8 m N-S x 2 m E-W with 27 stones minimum. The overall site area is 80 m².

Cultural Affiliation: Unknown

Topographic Position: The site is located 58 m east of the main road on the slope of a prominent peninsula ridge. The elevation at the site is



East

LAKE SAKAKAWEA INVENTORY
SITE 32ML238 STONE CIRCLE
Figure 6.21

SI

586 m AMSL. Ground surface visibility at the time of inventory was 0%-30%. The nearest water source is an intermittent drainage 100 m south of the site. The Missouri River lies 7,220 m SE of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be poor: 50%-75% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses

and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML239

Site Type: Stone Circle and Other Rock Features (Figure 6.22)

Description: The site consists of four stone circles and one cairn. Stone Circle #1 is composed of at least 50 stones measuring 5 m N-S x 5 m E-W. Stone Circle #2 is 5 m N-S x 4 m E-W and consists of 30 stones. Stone Circle #3 is 6 m N-S x 5 m E-W and consists of at least 67 stones. Stone Circle #4 is 5 m x 5 m with at least 65 stones. The overall site area is 3,400 m².

Cultural Affiliation: Unknown

Topographic Position: The site is located on a flat grassy knoll above a deeply dissected E-W drainage. The elevation of the site is 583 m AMSL. The ground surface visibility during the time of inventory was 0%-20%. The nearest water source is an unnamed intermittent drainage 70 m south of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be good: less than 25% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.



East



North

LAKE SAKAKAWEA INVENTORY
SITE 32ML239 STONE CIRCLES
Figure 6.22

SI

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML240

Site Type: Stone Circle (Figure 6.23)

Description: Site consists of a large stone circle measuring 6 m N-S x 7 m E-W. The circle is composed of at least 48 stones with an additional nine stones in the center. The overall site area is 42 m².

Cultural Affiliation: Unknown

Topographic Position: The site is located on a small knoll above the East Branch of Douglas Creek. The elevation of the site is 584 m AMSL. The ground surface visibility during the inventory was 0%-10%. The nearest source of water is the East Branch of Douglas Creek, 40 m SE of the site. The Missouri River lies 6,960 m to the SE. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be fair: 25%-50% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.



Southeast

LAKE SAKAKAWEA INVENTORY
SITE 32ML240 STONE CIRCLE
Figure 6.23

SL

nearest source of water is an intermittent drainage 20 m NE of the site. The Missouri River lies 7,020 m to the south. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be good: less than 25% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML243

Site Type: Stone Circle (Figure 6.24)

Description: The site consists of a stone circle. The circle is 5 meters in diameter and composed of approximately 80 stones. The circumference is four stones thick (~ 1 meter) in places. Center stones were present. No cultural materials were observed. The overall site area is 25 m².

Cultural Affiliation: Unknown

Topographic Position: The site lies on a sloping ridge overlooking the East Branch of Douglas Creek. The elevation of the site is 582 m AMSL. The ground surface visibility during the inventory was 20%-30%. The



East



Northwest

LAKE SAKAKAWEA INVENTORY
SITE 32ML243 STONE CIRCLE
Figure 6.24

SAI

available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

6.1.3 Garrison Dam Recreation Area

The Garrison Dam Recreation Area is located in McLean County within Township 147N, Range 85W and Township 148N, Range 85W. A total of eight sites were located during the inventory (Figure 6.25). All of the eight are stone circle sites.





32ML241

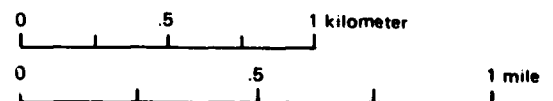
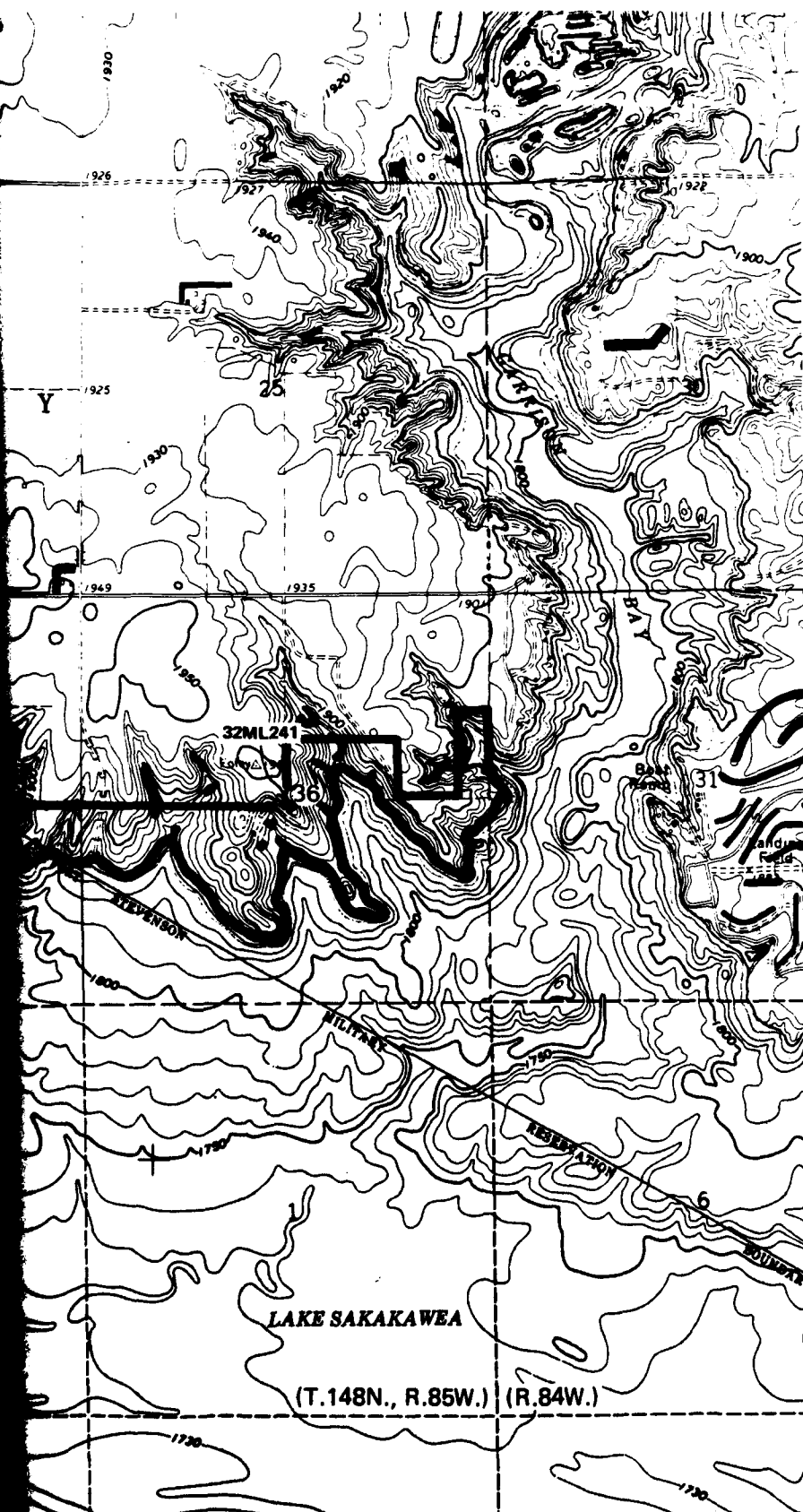
Site Type: Stone Circles and Cultural Material Scatter (Figure 6.26)

Description: The site consists of five stone circles, one lithic concentration, and two associated artifacts. Stone Circle #1 is 5 m N-S x 5.5 m E-W with at least 43 stones. Stone Circle #2 is 5 m N-S x 5 m E-W with at least 28 stones. Stone Circle #3 is 5 m x 5 m with 33 stones visible. Stone Circle #4 is 5 m x 5 m with at least 29 stones visible. Stone Circle #5 is 6 m x 6 m and contains 42 stones. Stone Circles #2 and #4 have depressions in the center along with several stones. Three flakes found in a concentration in the road were as follows: two Knife River Flint secondary flakes and one Knife River primary flake. One core of white chert and one interior Knife River Flint flake were found on an adjacent ridge.

Cultural Affiliation: Unknown

LAKE SAKAKAWEA INVENTORY
GARRISON BAY
Figure 6.25

-  Inventory Boundary
-  Site
-  Tree Break
-  Residential Area

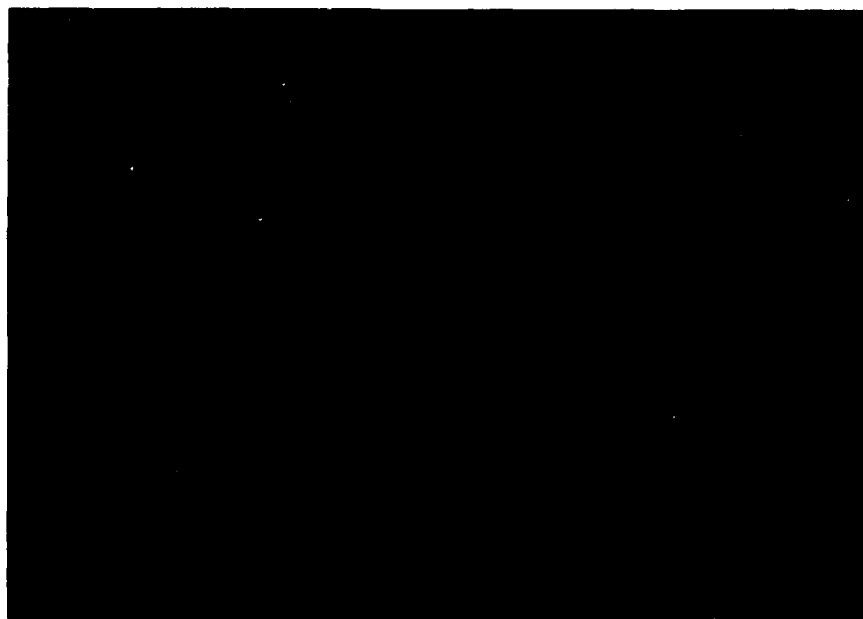


Contour Interval - 20 feet





North



West

LAKE SAKAKAWEA INVENTORY
SITE 32ML241 STONE CIRCLES
Figure 6.26

SI

Topographic Position: The site lies on a southeasterly extending ridge finger. The elevation of the site is 593 m AMSL. The ground surface visibility during the inventory was considered 25%-40%. The nearest source of water is an intermittent drainage 85 m NE of the site. The Missouri River lies 3,140 m south of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be poor: 50%-75% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the

stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML242

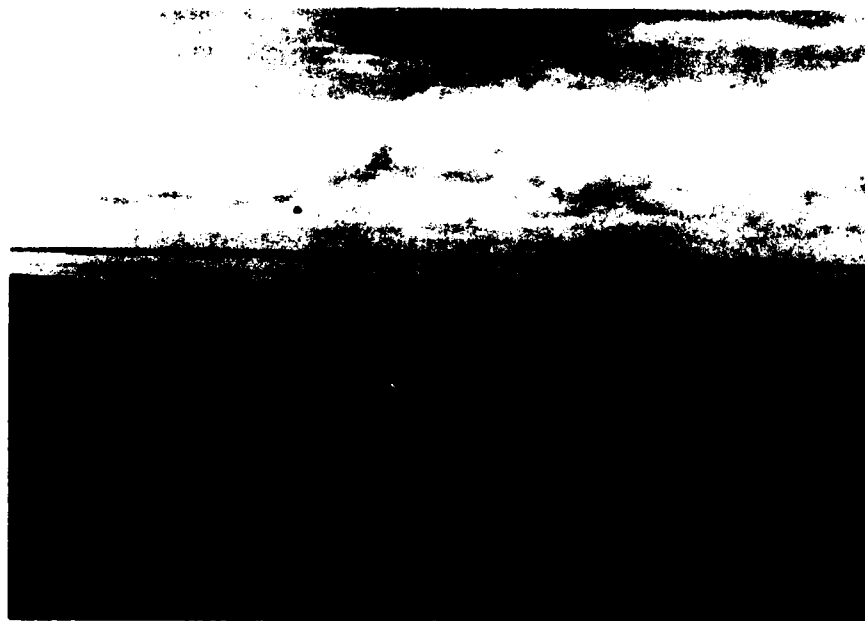
Site Type: Stone Circle and Other Rock Features (Figure 6.27)

Description: The site consists of a stone circle 9 m N-S x 8 m E-W and one associated cairn. The circumference of the stone circle is 4-5 stones thick; 154 stones were visible. No cultural materials were observed.

Cultural Affiliation: Unknown

Topographic Position: The site lies at the SW slope of a prominent knoll just SE of a deeply incised intermittent drainage. The elevation of the site is 583 m AMSL. The ground surface visibility during inventory was 30%. The nearest source of water is an unnamed intermittent drainage 100 m NW of the site. The Missouri River lies 3,600 m south of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be good: less than 25% of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.



South



North

LAKE SAKAKAWEA INVENTORY
 SITE 32ML242 STONE CIRCLE
 Figure 6.27



Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML248

Site Type: Stone Circles (Figure 6.28)

Description: This site consists of two stone circles. The first is a double-ringed circle measuring 5 m N-S x 5.47 m E-W. Twenty-eight stones form the perimeter of the feature; three stones are located inside. The stones range from 5 cm to 31 cm in size. The second circle located upslope at 18 m, 294°, measures 6.10 m N-S x 5.90 m E-W and consists of 24 stones averaging 10-30 cm in size. No cultural materials were observed.

Cultural Affiliation: Unknown

Topographic Position: The site lies on a moderately sloping, east-facing ridge overlooking a south-flowing tributary drainage of the Missouri River. The site elevation is 575 m AMSL. The ground surface visibility during the inventory was 60%-80%. The nearest water is an unnamed drainage 120 m east of the site. The Missouri River lies 4,600 m south of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be fair: 25%-50% of the site has been disturbed. Past disturbance has been caused by mechanical harvesting of native grasses, and future impact by same is expected.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through



North



East

LAKE SAKAKAWEA INVENTORY
SITE 32ML248 STONE CIRCLES
Figure 6.28



erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML249

Site Type: Stone Circles (Figure 6.29)

Description: 32ML249 consists of one moderately disturbed stone circle and the remains of perhaps two-three additional circles. Stone Circle #1 is 5.5 m N-S x 5 m E-W and consists of approximately 47 stones forming the perimeter with four stones located inside. The feature may be double ringed, but prior disturbance to the perimeter stones makes assessment of the alignment difficult. The remaining stone alignments consist of



South



North

LAKE SAKAKAWEA INVENTORY
SITE 32ML249 STONE CIRCLES
Figure 6.29

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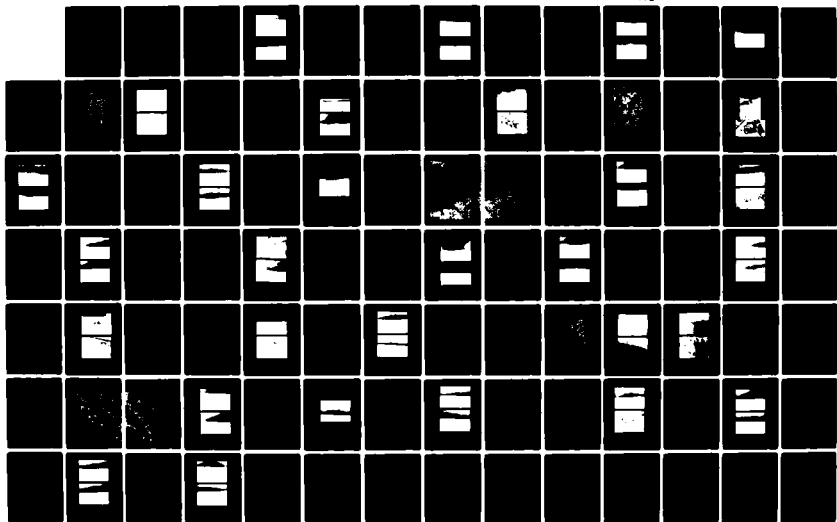
A CULTURAL RESOURCES INVENTORY OF EASTERN PORTIONS OF
LAKE SAKAKAWEA NORTH (U) SCIENCE APPLICATIONS INC
GOLDEN CO G MOORE 15 SEP 82 DACW45-81-C-0220

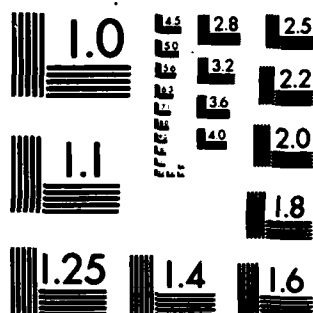
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NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

roughly crescentic stone lines, each about 5 m x 5.5 m (extrapolated) in size, located about 40 m south of Stone Circle #1. No cultural materials were observed.

Cultural Affiliation: Unknown

Topographic Position: The site lies on a bench, which is the terminus of a low, east-trending ridge overlooking a south-flowing tributary drainage of the Missouri River. The elevation of the site is 568 m AMSL. The ground surface visibility during the inventory was 60%-80%. The nearest water source is an intermittent drainage 60 m east of the site (now submerged by the Lake). The Missouri River lies 4,560 m south of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be fair: between 20%-50% of the site has been disturbed. Present and future disturbances have been and will be caused by agricultural impact and also by future high stands of Lake Sakakawea.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can

be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML250

Site Type: Stone Circles (Figure 6.30)

Description: 32ML250 consists of two stone circles separated by 51 m. Circle #1 is 4.2 m N-S x 4.3 m E-W and has approximately 25 perimeter stones and 3 interior stones. The stones range 10-30 cm in size. Circle #2 is 4.9 m N-S x 5.5 m E-W and has approximately 29 perimeter stones and 1 interior stone. The stone size range is similar to those in Circle #1. No cultural materials were observed.

Cultural Affiliation: Unknown

Topographic Position: The site lies along the contour of a gentle east-facing ridge slope overlooking a south-flowing tributary of the Missouri River. The elevation of the site is 578 m AMSL. The ground surface visibility during the inventory was 60%-80%. The nearest water source is an intermittent drainage 200 m NE of the site. The Missouri River lies



East



South

LAKE SAKAKAWEA INVENTORY
SITE 32ML260 STONE CIRCLES
Figure 6.30

A

4,640 m south of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be good: less than 25% of the site has been disturbed. Disturbance has taken place through mechanical harvesting of native grasses, and continued harvesting could further impact the site.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site

environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML251

Site Type: Stone Circles and Other Rock Features (Figure 6.31)

Description: 32ML251 consists of four stone circles (two partial) and one stone cairn. The construction data are as follows: (a) Stone Circle #1: 5.00 m N-S x 4.75 m E-W, 40 perimeter stones, 10-20 cm in size; (b) Stone Circle #2: partial, 5.0 m N-S x 4.8 m E-W, 20 perimeter stones, 10-20 cm in size; (c) Stone Circle #3: partial, crescentic, open to ENE; and (d) Stone Circle #4: 5 m N-S x 5 m E-W, 36 perimeter stones, 10-35 cm in size; pile of stones in 1-m diameter depression (11 total), 10-30 cm in size. Cairn: 1.5 m², average stone size is 20-30 cm. No cultural materials were observed.

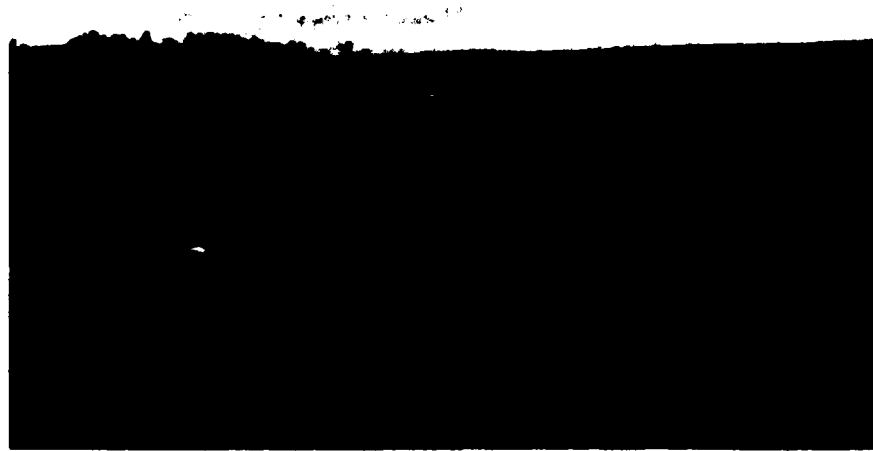
Cultural Affiliation: Unknown

Topographic Position: The site lies near the shoulder slope of a southwest-trending ridgetop, which overlooks a south-flowing tributary of the Missouri River. The elevation of the site is 571 m AMSL. The ground surface visibility during inventory was 50%-70%. The nearest water source is an unnamed drainage 77 m NW of the site. The Missouri River lies 4,880 m south of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be fair: 25%-50% of the site has been disturbed. Past disturbances are known to be through mechanical harvesting of native grasses and through cattle grazing. Future impact through the same agencies is expected, plus possible future expansion of a residential area 200 m to the south.



South



West

LAKE SAKAKAWEA INVENTORY
SITE 32ML251 STONE CIRCLES
Figure 6.31

RA

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML252

Site Type: Stone Circles (Figure 6.32)

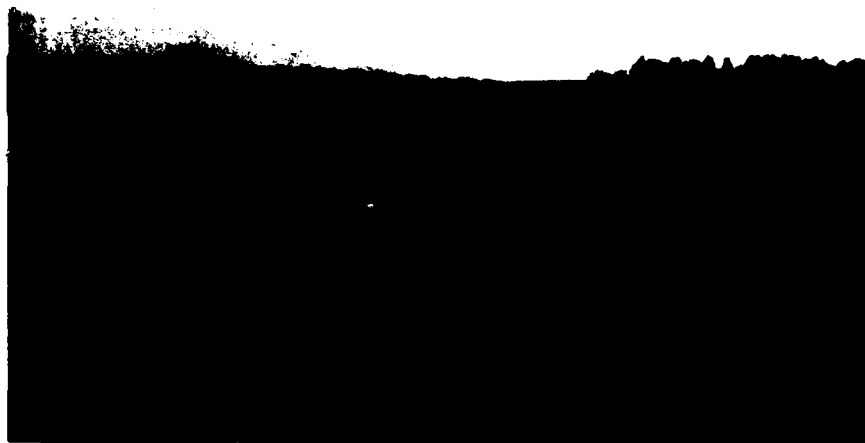
Description: 32ML252 consists of three stone circles. The stone circle construction data are as follows: (a) Stone Circle #1 (southernmost): 6 m N-S x 5 m E-W, approximately 35 perimeter stones, 20-40 cm in size, no stones in center, lightly disturbed; (b) Stone Circle #2: 5 m N-S x 7 m E-W, 25 perimeter stones, avg. 20-40 cm in size; and (c) Stone Circle #3: 6 m N-S x 6 m E-W, approximately 35 perimeter stones, 30-40 cm in size. No cultural materials were observed.

Cultural Affiliation: Unknown

Topographic Position: The site lies on the top of a narrow south-trending spit, which marks the confluence of two minor drainages, forming a south-flowing tributary of the Missouri River. The elevation of the site is 567 m AMSL. The ground surface visibility during the inventory was 60%-80%. The nearest water source is an unnamed drainage 35 m east of the site. The Missouri River lies 4,820 m south of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be good: less than 25% of the site has been disturbed. Present disturbance probably has occurred due to harvesting of native grasses, as well as cattle grazing and high water stands of Lake Sakakawea. Future impact is expected to be the same.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas



East



South

LAKE SAKAKAWEA INVENTORY
SITE 32ML262 STONE CIRCLES
Figure 6.32



are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML253

Site Type: Stone Circle and Other Rock Features (Figure 6.33)

Description: 32ML253 is a single stone circle and a cairn. The stone circle is 5 m N-S x 5 m E-W, with approximately 25 perimeter stones ranging 30-40 cm in size. The cairn, lying 16 m west (on same contour), is 2 m N-S x 1 m E-W and consists of 15 stones. No cultural materials were observed.



Northeast

LAKE SAKAKAWEA INVENTORY
SITE 32ML253 STONE CIRCLE
Figure 6.33

SI

Cultural Affiliation: Unknown

Topographic Position: The site lies on a steep east-west trending ridge slope overlooking a side canyon drainage, which empties into a south-flowing tributary to the Missouri River. The elevation of the site is 571 m AMSL. The ground surface visibility during the inventory was 50%-70%. The nearest water source is an intermittent drainage 70 m NE of the site. The Missouri River lies 4,840 m south of the site. The depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be good: less than 25% of the site has been disturbed. Present disturbance probably is due to mechanical harvesting of grasses and cattle grazing, combined with recreational (picnicking, etc.) use of the area. Future disturbance is expected to be the same.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These

studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

6.1.4 Fort Stevenson State Park

Fort Stevenson State Park is located in McLean County within Township 147N, Range 85W and Township 148N, Range 84W. A total of three sites were located during the inventory (Figure 6.34). All three are stone circle sites.

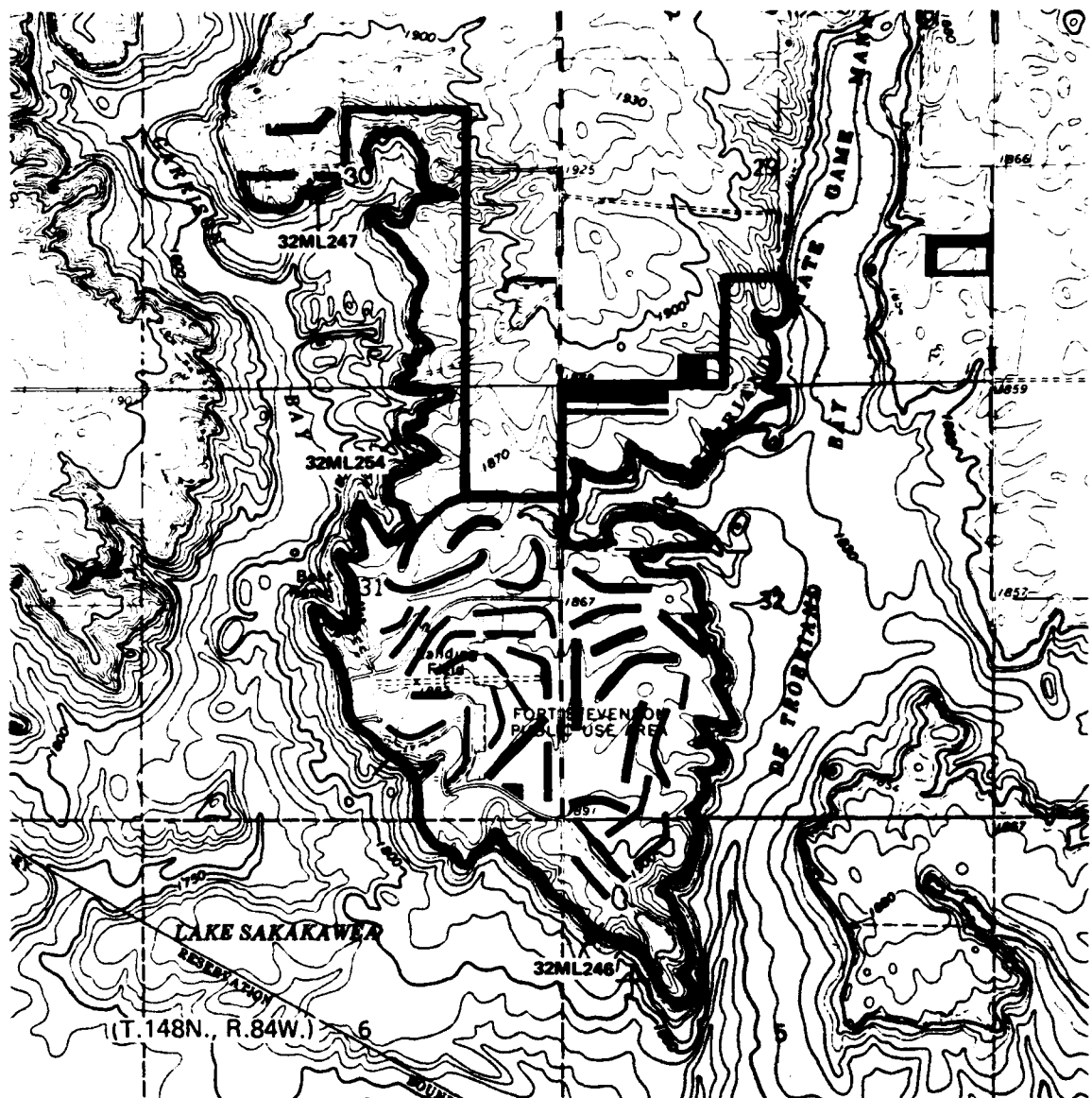
32ML246

Site Type: Stone Circle (Figure 6.35)

Description: The site consists of one stone circle. The site is immediately adjacent to the cut bank formed by wave action from Lake Sakakawea. The stone circle is 5.40 m N/S and 5.40 m E/W. Stones in the circle number 44 and range in size from 9-35 cm. The circle appears to be double-ringed. No cultural materials were observed.

Cultural Affiliation: Unknown

Topographic Position: The site lies on a gently rolling, grassy hilltop immediately adjacent to a cutbank formed by wave action from Lake



- Inventory Boundary
- Site
- Tree Break

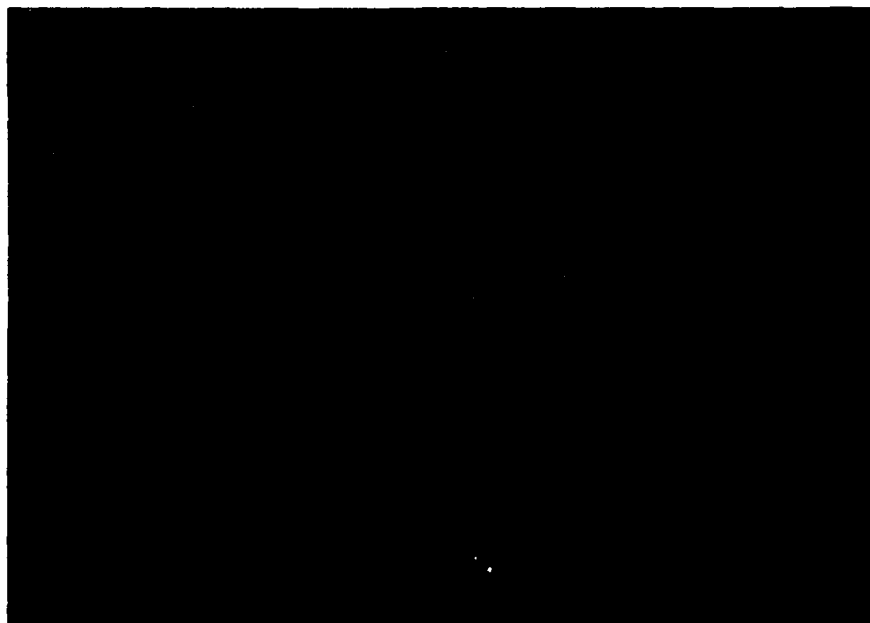
**LAKE SAKAKAWEA INVENTORY
FORT STEVENSON PUBLIC USE AREA
Figure 6.34**

0 5 1 kilometer

0 5 1 mile



Contour Interval = 20 Feet



Northwest



Northeast

LAKE SAKAKAWEA INVENTORY
SITE 32ML246 STONE CIRCLE
Figure 6.35

SI

Sakakawea. The elevation of the site is 567 m AMSL. The ground surface visibility during the inventory was 20%-30%. The nearest water source is an unnamed intermittent drainage 80 m from the site. The Missouri River lies 2,500 m south of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be good: less than 25% of the site has been disturbed. Present disturbance probably is due to erosion and wave action of Lake Sakakawea, and casual recreational use (hikers and picnickers using the stones for campfires, etc.).

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned

(for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ML247

Site Type: Stone Circle and Other Rock Features (Figure 6.36)

Description: Site consists of one stone circle with possible stone cairn associated also. Stone circle is 6.30 m N/S and 7.00 m E/W with ~ 61 stones ranging in size from 10-40 cm, possibly double-ringed. The possible stone cairn is composed of six stones (10-30 cm) and is located 5 m to the NW. No cultural materials were observed.

Cultural Affiliation: Unknown

Topographic Position: The site lies on a flat to rolling, grassy hilltop above and at 40 m from Lake Sakakawea. The elevation of the site is 571 m AMSL. The ground surface visibility during the inventory was 20%-45%. The nearest water is an unnamed intermittent drainage 180 m SE of the site. The Missouri River is located 4,780 m south of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be good: less than 25% of the site has been disturbed. Present disturbance is due to wave action of Lake Sakakawea. Future disturbance of the same kind and residential encroachment may impact this area.



East



North

LAKE SAKAKAWEA INVENTORY
SITE 32ML247 STONE CIRCLE
Figure 6.36

SI

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined thoroughly.

32ML254

Site Type: Stone Circles and Other Rock Features (Figure 6.37)

Description: The site is composed of the following: (1) partial stone circle ~ 5.0 m N/S and 5.5 m E/W composed of ~ 35 stones ranging from 10-25 cm, possibly double-ringed; (2) partial stone circle, double-ringed fragment composed of 8 stones ~ 20-25 cm in size; (3) Stone Cairn #1 ~ .50 m N/S and 1 m E/W composed of 11 stones ranging in size from 10-30 cm; (4) Stone Cairn #2 approx. 1 m x 1 m diameter composed of 5 stones, all ~ 25 cm in size. No cultural materials were observed.

Cultural Affiliation: Unknown

Topographic Position: The site lies on a flat hilltop just above and east of the Lake Sakakawea shoreline and within a plowed tree (wind) break. The elevation of the site is 568 m AMSL. The ground surface visibility during the inventory was 50%-60%. The nearest water source is an intermittent drainage 250 m north of the site area. The Missouri River lies 3,980 m south of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of inventory was considered to be very poor: more than 75% of the site has been disturbed. Most of the disturbance is due to plowing to 15-20 cm below ground surface. Future impact is expected to be maintenance activities (pruning, etc.) around the windbreak.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.



Northwest



CLOSE-UP OF PORTION OF STONE CIRCLE

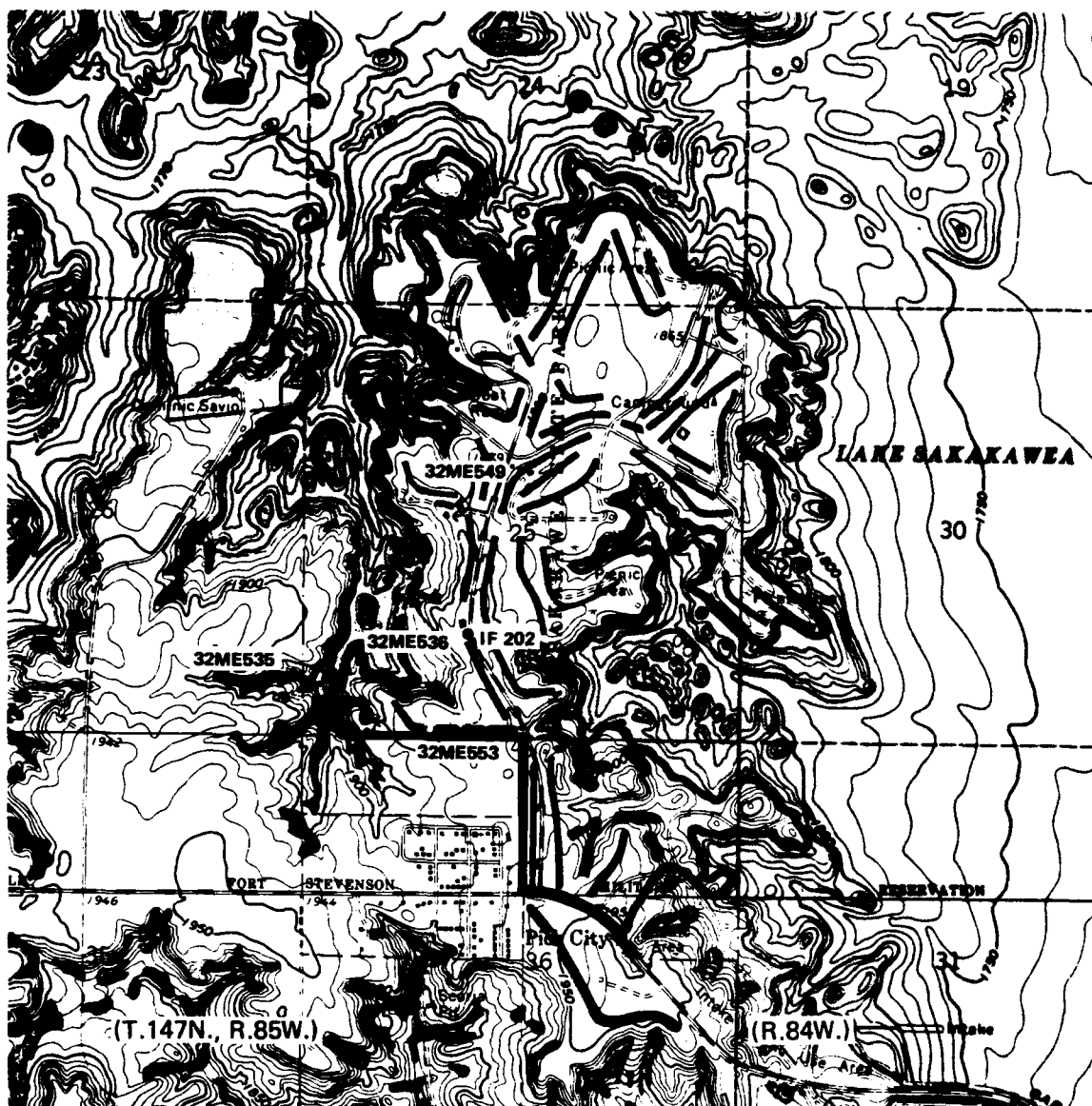
LAKE SAKAKAWEA INVENTORY
SITE 32ML254 STONE CIRCLES
Figure 6.37

SI

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined thoroughly.

6.1.5 Lake Sakakawea State Park

Lake Sakakawea State Park is located in Mercer County within Township 147N, Range 85W and Township 147N, Range 84W. A total of four sites and one isolated find were located during the inventory (Figure 6.38). The site types include: one bone scatter, two cultural material scatters, and one historic farmstead. The isolated find (IF 202) is a fragmented biface of Knife River Flint. The cultural affiliation of the biface could not be determined.



- Inventory Boundary
- Site
- Isolated Find
- Tree Break
- Historic

LAKE SAKAKAWEA INVENTORY
LAKE SAKAKAWEA STATE PARK
Figure 6.38

0 .5 1 kilometer

0 .5 1 mile



Contour Interval = 20 feet

32ME535

Site Type: Miscellaneous (Bone Scatter) (Figure 6.39)

Description: The site consists of an extensive scatter of bone (long bones, ribs, teeth). The overall site size is 625 m². One flake of Knife River Flint was noted but not collected. Most of the bones are probably bison. Some of the bones appear to have been subject to human modification. Six pieces of bone were collected. The identification and discussion of analysis of these specimens appear below in Section 6.2.3.

Cultural Affiliation: Unknown

Topographic Position: The bone scatter is located on the side of a ridge. Adjacent to the ridge on the west is a drainage channel which originally (now flooded by Lake Sakakawea to form an inlet) flowed north and emptied into the Missouri River. The bone scatter is at an elevation of 561 feet above mean sea level. This elevation places the site below the maximum pool elevation (565 m) of Lake Sakakawea. The site was only visible because the lake level was low. The ground visibility at the time of the inventory was 70%-80%. The nearest water to the site would have been the now flooded drainage channel located approximately 20-30 m to the west. The depth of the site is unknown.

Condition: The condition of the site at the time of the inventory was assessed as inundated (even though portions of the site were visible) since this condition is the most likely one to prevail at any given year. How much of the site is underwater is unknown. A Field check of the site on August 1, 1982, showed the lake level to be high and the site under several meters of water.

Integrity, Significance, and Management Recommendations: The integrity of the site as currently observed is disturbed by the presence of numerous water-soaked logs and tree limbs, trash (bottles, cans, fishing gear), and wave action from the lake. Even though the spatial distribution of bone is displaced, the site may still have research value because the cultural

North



LAKE SAKAKAWEA INVENTORY
SITE 32ME535 BONE SCATTER
Figure 6.39

SI

modification of the bone could possibly provide information on site function. The overall effect of the water on the resource is unknown.

The significance of the bone scatter at 32ME535 cannot be determined using the data collected during the inventory. The data lack sufficient detail. Since the bone scatter was assessed to still have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended to determine the significance of the site. The additional work should include a field check (when possible) for more specimens of culturally modified bone, diagnostic artifacts, and hearths.

32ME536

Site Type: Cultural Material Scatter (Figure 6.40)

Description: The site consists of a scatter of core reduction and tool manufacturing debris, fire-cracked rock, and bone and teeth fragments. The total site area is 5,200 m². The bone and teeth fragments were not identifiable. The fire-cracked rock and flakes are intermixed with two separate scatters. The spatial patterning within the scatters is probably determined more by natural (wave action) rather than cultural causes. Within one scatter, there are 41 pieces of chipped stone and 8 pieces of fire-cracked rock. Within the second scatter, there are 6 pieces of chipped stone and approximately 15-20 pieces of fire-cracked rock. In addition to the two scatters, there is also a circle of stones, which may be a hearth, and nearby a diffuse pile of stones, for which the function is unknown. The hearth measures 70 cm x 70 cm. No charcoal is visible on the surface or in the subsurface trowel probe. The features and the chipped stone may or may not be contemporaneous.

The chipped stone visible at the site number 46 and include the following: 2 cores, 14 secondary flakes, 20 interior flakes, 9 biface thinning flakes, 1 chunk, and one side-notched biface. All of the artifacts are of Knife River Flint. None of the artifacts exhibit edge damage that might be attributable to use wear. The artifacts collected



Northwest



Northwest

LAKE SAKAKAWEA INVENTORY
SITE 32ME536
CULTURAL MATERIAL SCATTER
Figure 6.40

RI

include: one tabular core fragment, four secondary flakes, and three interior flakes.

Cultural Affiliation: The side-notched biface is probably assignable to the periods of cultural adaptation following the Archaic. Along the middle section of the Missouri River, this would include the major cultural periods termed the Woodland (A.D. 0-900) and the Plains Village (A.D. 900-1862) (Wedel 1961; Willey 1966; Lehmer 1971). The surficial provenience of the recovered biface does not allow for a more specific assessment.

Topographic Position: The scatters of chipped stone and fire-cracked rock are located on the side of a hill at an elevation of 564 m above mean sea level. This elevation places the site below the maximum pool elevation (565 m) of Lake Sakakawea. The site was only visible because the lake level was low. At the time of the inventory, the ground visibility was 100%. The nearest water is a drainage channel (now flooded) located approximately 160 m to the west. With the exception of a small trowel probe which proved to be sterile, the depth of the site is unknown since it was not adequately tested.

Condition: The condition of the site at the time of the inventory was assessed as inundated (even though portions of the site were visible) since this condition is the most likely one to prevail at any given year. How much of the site is underwater is unknown. A field check of the site on August 1, 1982 showed the lake level to be high and the site under water.

Integrity, Significance, and Management Recommendations: The integrity of the site as currently observed is disturbed by the wave action from the lake and by the presence of modern garbage. Even though the spatial distribution of the artifacts is probably displaced, the site may still have research value for defining site function. Pertinent data may be buried or still underwater. The overall effect of the water on the resource is unknown.

The significance of the cultural material scatter at 32ME536 cannot be determined using the data collected during the inventory. The data lack sufficient detail. Additional fieldwork is recommended to determine the significance of the site. The additional work should include a field check (when possible) for additional features and chipped stone debris. The subsurface depth should also be tested.

32ME549

Site Type: Cultural Material Scatter (Figure 6.41)

Description: 32ME549 is a scatter of chipped stone artifacts located on a flat hilltop within Lake Sakakawea State Park. The cultural materials are visible in the backdirt from three gopher holes and in a two-ruc dirt road that crosses the site and the hill. Other roads in the state park have been graveled but, at the date of recording, this road appeared not to have been. This located along a flat hilltop. Other roads in the park have been graveled but, at date of recording, this road appeared not to have been. This, coupled with the fact that artifacts were observed in the gopher holes, suggests an in situ location. The overall site area is 375 m². A total of nine artifacts were observed and recorded. These include: one secondary flake, six interior flakes, one probable exhausted core material, one debitage, and one chunk. Two of the flakes are probably biface thinning flakes. Seven of the artifacts are of Knife River Flint; three are of grey porcellanite. One of the interior flakes is approximately 10 mm in length, one secondary flake is greater than 40 mm in length (broken), and the remaining flakes are between 20-40 mm in length. Of the artifacts observed, a secondary flake of Knife River Flint and a chunk of Knife River Flint were collected. One edge on the chunk has been retouched.

Cultural Affiliation: Unknown

Topographic Position: The cultural material scatter is located along a flat hilltop at an elevation of 577 m above mean sea level. The resource



Northwest



West

LAKE SAKAKAWEA INVENTORY
SITE 32ME549
CULTURAL MATERIAL SCATTER
Figure 6.41

SI

is located adjacent to a drainage which is now flooded by Lake Sakakawea. The drainage probably provided the nearest source of water located at approximately 260 m to the west. At the time of the inventory, the ground visibility was between 30%-50%. The exact depth of the site is unknown since no subsurface testing was completed. The presence of cultural materials in gopher hole backdirt does suggest that some depth is present.

Condition: The condition of the site at the time of the inventory was assessed as good: less than 25% of the site destroyed. The site is receiving impact from burrowing rodents and occasional vehicular traffic. The vehicular traffic is restricted to park personnel only.

Integrity, Significance, and Management Recommendations: As currently observed, the cultural material scatter at 32ME549 has integrity. The buried materials could possibly provide information on culture chronology, site function, and tool technology. The integrity of the site would be endangered if the U.S. Army COE widened the road or planted a tree break.

Based on the fieldwork completed during the inventory, the significance of 32ME549 cannot be determined, and additional fieldwork is recommended. The added work should include testing the nature, complexity, and extent of the buried cultural materials and detailed mapping.

32ME553

Site Type: Cultural Material Scatter, Depression, Foundation, and Machinery (Figure 6.42)

Description: 32ME553 is a historic farmstead, consisting of two concrete foundations and seven depressions. One foundation has a basement. One depression may mark an outhouse, another may be a root cellar, but the function of the others is uncertain. Farm machinery and domestic trash are also included. Bottle glass and round nails are included in the trash scatter. The overall site area is 3,600 m².



HISTORIC FOUNDATION

Southwest

LAKE SAKAKAWEA INVENTORY
SITE 32ME553
HISTORIC FARMSTEAD
Figure 6.42

sl

Cultural Affiliation: Patents on the land were filed in 1902 (L. C. Black), 1912 (J. J. Unterseher), and 1922 (P. Mohl). P. Mohl sold out in 1946 and, in 1948, the land reverted to Federal ownership.

Topographic Position: The historic farmstead is situated on a ridge overlooking a drainage channel now flooded by Lake Sakakawea to form an inlet. The elevation of the site is 578 m above mean sea level. The visibility of the ground surface at the time of the inventory was only between 20%-30%. The nearest source of water to the site would have been an intermittent drainage located approximately 60 m to the west and south. The depth of the site is not known because no subsurface testing was undertaken.

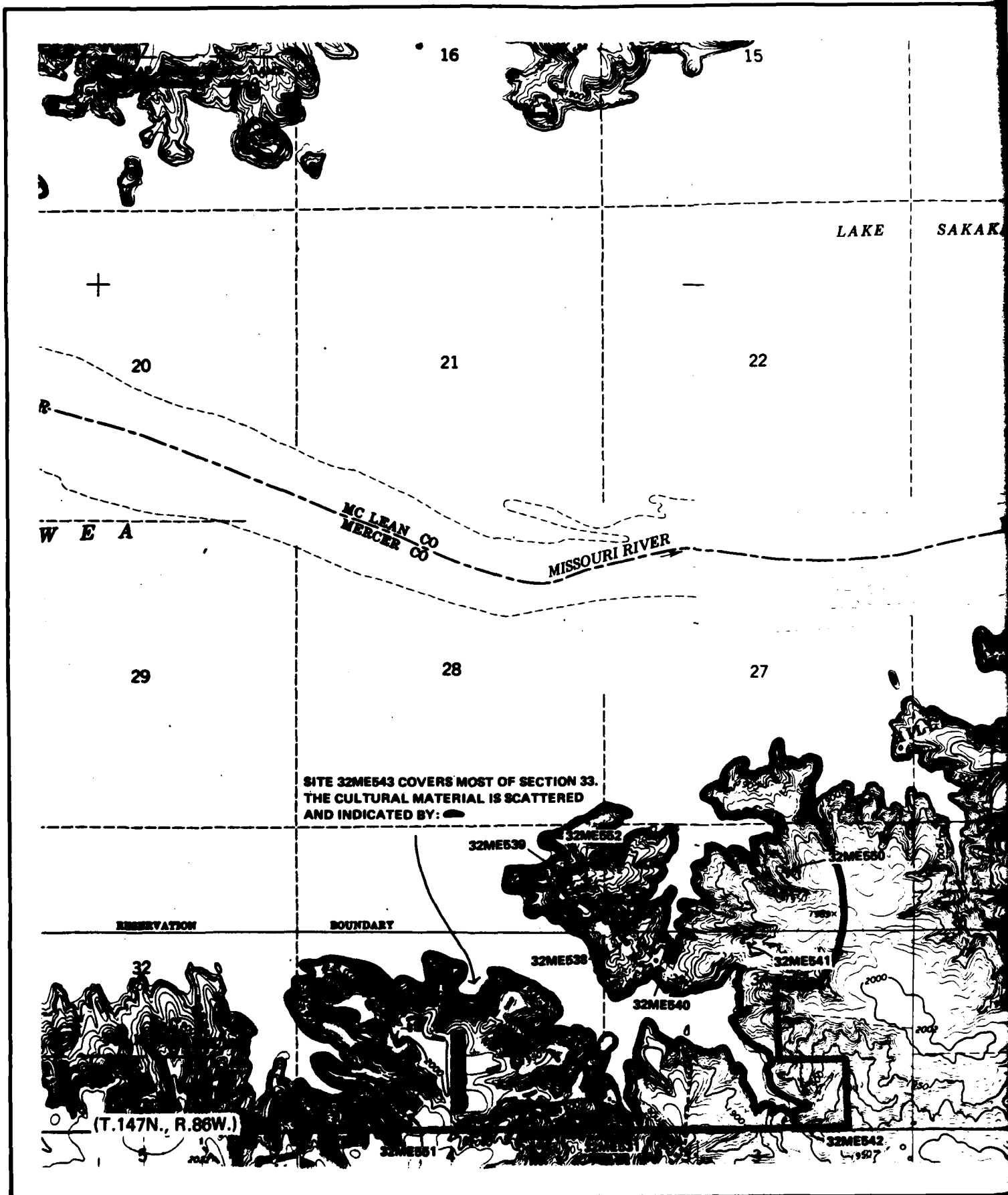
Condition: The condition of the site at the time of the inventory was assessed as poor: 50%-75% of the site had been disturbed.

Integrity, Significance, and Management Recommendations: Even though there are no standing structures, the site is still considered to have integrity because the spatial location of the foundations, depressions, and trash scatters may provide information on settlement patterns for these site types.

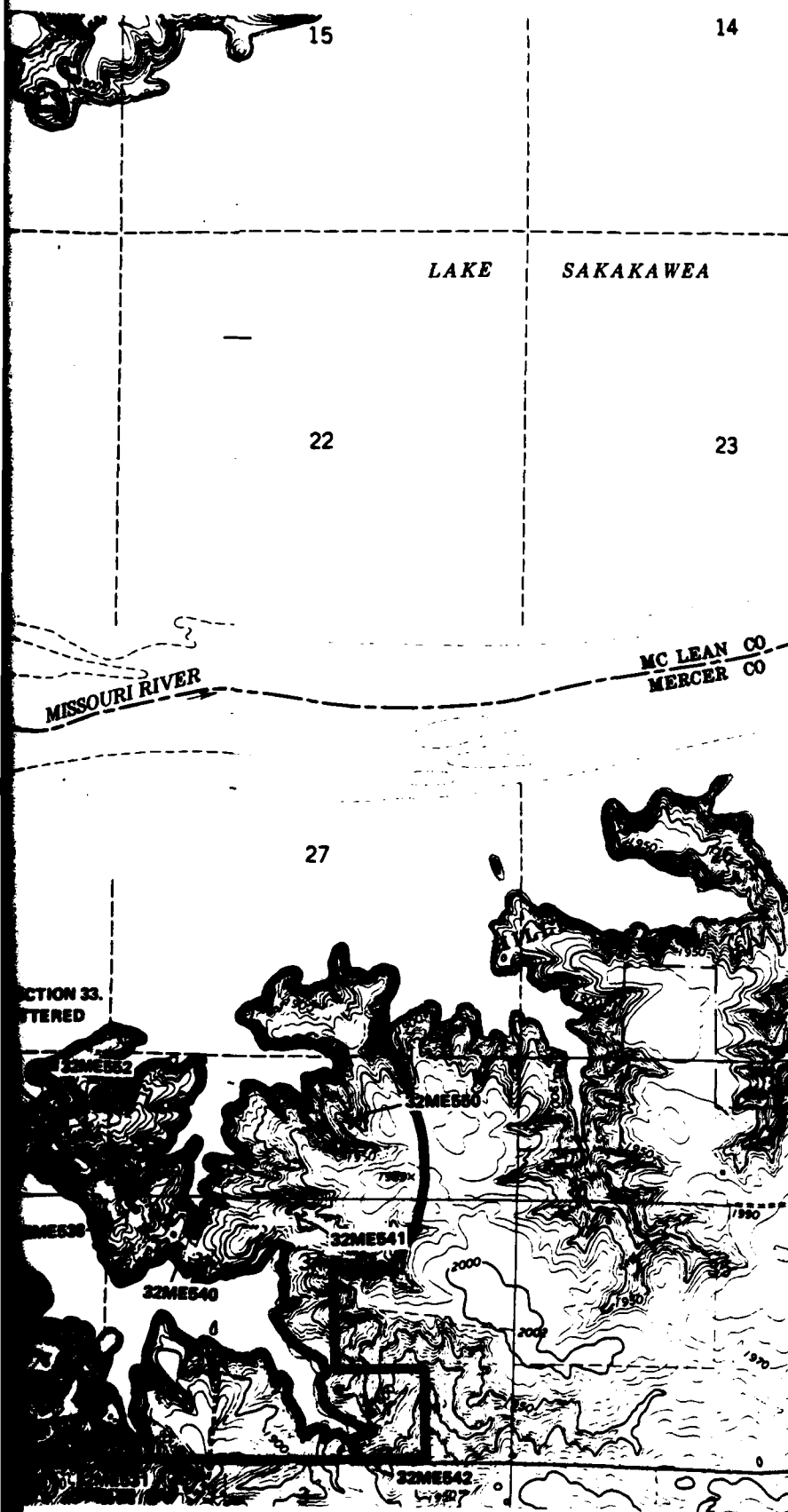
The significance of the site cannot be determined using the data collected during the inventory. The data lack sufficient detail. Additional fieldwork to determine site significance is recommended. This fieldwork should include a detailed map, a detailed list of the associated artifacts, and testing for subsurface cultural materials and/or features.

6.1.6 Hazen Bay Public Use Area

The Hazen Bay Public Use Area is located in Mercer County within Township 147N, Range 87W. A total of 10 sites were located during the inventory (Figure 6.43). This includes six stone circle sites, one stone cairn site, and three cultural material scatters.



LAKE SAKAKAWEA INVENTORY
HAZEN BAY
Figure 6.43



- Inventory Boundary
- Site
- ▬ Tree Break
- Test Hole
- * Depression
- Possible Eagle Trapping Pit

2

32ME531

Site Type: Stone Circle (Figure 6.44)

Description: The site consists of one partial circle of 14 stones. There are depressions along the southern arc where stones have eroded or been removed. No cultural materials were observed.

Cultural Affiliation: Unknown

Topographic Position: The site is located on a narrow, finger ridge extending into a small inlet on Hazen Bay. The elevation of the site is 574 m AMSL. The ground surface visibility during the inventory was 40%-50%. The nearest source of water are two unnamed intermittent drainages 125 m east and west of the site. The Missouri River lies 2,580 m north of the site. Depth of the site is unknown as subsurface testing was not undertaken.

Condition: The condition of the site at the time of the inventory was considered to be good: less than 25 of the site has been disturbed. Present disturbances probably are due chiefly to National Guard (Engineer) training activity (bridge and road building, bivouac, etc.), and future disturbances of the same kind may continue.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.



East



North

LAKE SAKAKAWEA INVENTORY
SITE 32ME531 STONE CIRCLE
Figure 6.44

SL

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined thoroughly.

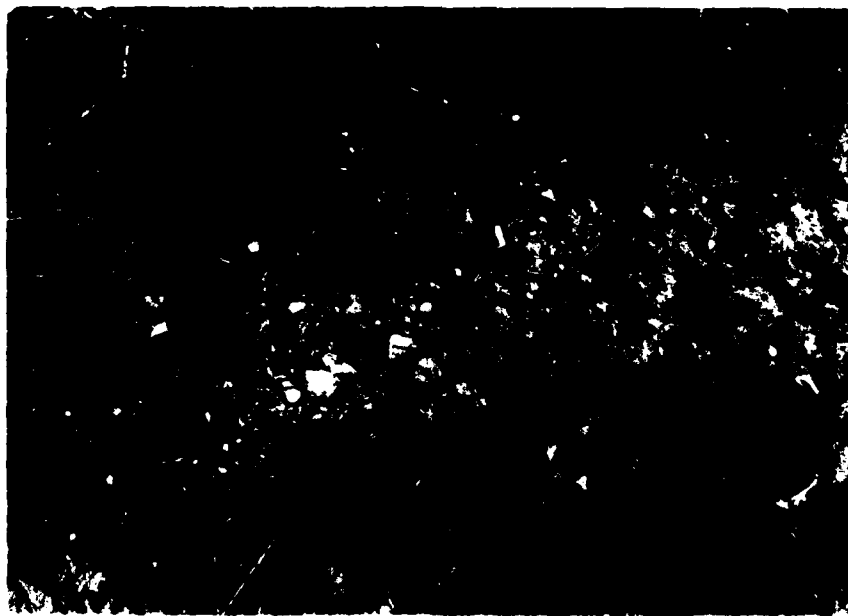
32ME538

Site Type: Cultural Material Scatter (Figure 6.45)

Description: 32ME538 is a scatter of pottery, bone, and flakes. A two-track road running NW-SE bisects the site. The artifacts described below were found in the roadbed. The overall site area is 350 m². A total of 110 pieces of pottery were observed. Three rims and 20 body sherds were collected and are described below (Section 6.2.2). The rims are probably Riggs Ware, possibly a variety of Riggs Pinched. Eighteen pieces of chipped stone were observed. This includes 2 bifaces (collected), 15 flakes or flake fragments, and 1 debitage chunk. With the exception of two, all of the flakes or flake fragments are of Knife River Flint. One flake is of red chert, the other milky chalcedony. Both the bifaces are



Northwest



POTTERY, BONE AND CHIPPED STONE ARTIFACTS EXPOSED IN ROAD

LAKE SAKAKAWEA INVENTORY
SITE 32ME538
CULTURAL MATERIAL SCATTER
Figure 6.45

SI

of Knife River Flint. The debitage is of grey porcellanite and may be unifacially utilized. Numerous bone fragments were visible in the roadbed (mostly heavily crushed from vehicular traffic). Unfortunately, no bone was collected for identification.

One shovel test hole was dug at approximately 17 m to the west of the scatter in the roadbed. This test hole was taken to a depth of 35 cm. No cultural materials or bones were located.

Cultural Affiliation: The side-notched biface is probably assignable to the periods of cultural adaptation following the Archaic. Along the middle section of the Missouri River, this would include the major cultural periods termed the Woodland (A.D. 0-900) and the Plains Village (A.D. 900-1862) (Wedel 1961; Willey 1966; Lehmer 1971). The presence of Riggs Ware pottery (possibly Riggs Pinched) suggests either Extended or Terminal Variants within the Plains Village Culture (Johnson 1980:53). If these associations are correct, this would tentatively place the date of the site between A.D. 1550-1675 (Lehmer 1971:120, 124).

Topographic Position: 32ME538 is located on a high, flat hilltop overlooking a large inlet on Lake Sakakawea. The inlet was a large drainage before being flooded by the lake. The site is at an elevation of 587 m above mean sea level. The ground surface visibility at the time of the inventory was 100% on the road; 60% off the road. The nearest water would have been an intermittent drainage flowing into the drainage mentioned above. The intermittent drainage is approximately 62 m to the northwest. Although a shovel test hole was dug to a depth of 35 cm, the depth of the cultural materials remains unknown since the test hole was sterile. The presence of cultural materials in the roadbed suggests that other portions of the site will have some depth.

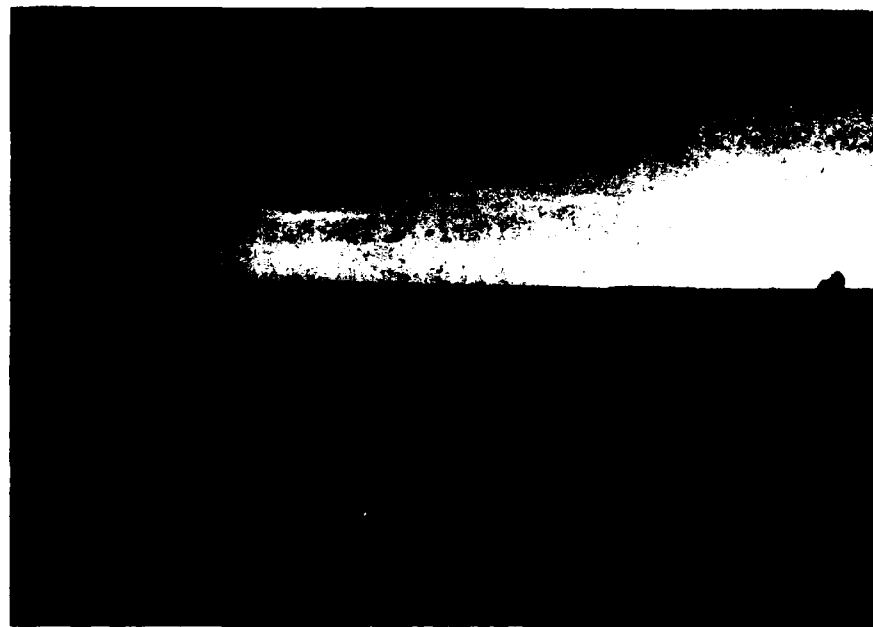
Condition: The condition of the site at the time of the inventory was assessed as good: less than 25% of the site has been destroyed. The major source of disturbance is the two-rut road. At the time of the inventory, both recreation and agriculture activities were at a minimum.

Integrity, Significance, and Management Recommendations: As currently observed, 32ME538 is considered to have integrity. The spatial integrity of the materials in the roadbed may be disturbed, but other kinds of information (such as site function and chronology) may be gained from studying the diversity of materials at the site. Portions of the site may be buried offering the opportunity to gain information about spatial contexts in these areas. 32ME538 is potentially significant in terms of the criteria for nomination (especially 36CFR60.d) to the NRHP. Evaluative testing and an impact analysis is recommended.

43ME539

Site Type: Cultural Material Scatter (Figure 6.46)

Description: 32ME539 consists of an extensive chipped stone scatter. The artifacts are most visible in a two-rut dirt road which cuts across the site and along the flat hilltop edge where the vegetative cover is less dense. The overall site area is 2,000 m². Chipped stone artifacts were collected from two transects located at 0° and 310° off the datum. The transects were not chosen randomly but were located across the densest portions of the cultural material scatter at the site. The length of each transect was 20 m (steep cliff edge occurred at 20 m); however, cultural materials were not found along the entire 20 m length. Each collection unit within a transect measured 1 m x 2 m. Along both the 0° and 310° transects, cultural materials were found in the 10-12 m, 14-16 m, and 18-20 m transects. The densest collection unit was along the 310° transect from 14-16 m. A preliminary examination of the collected materials suggests no difference between the two transects, so the data concerning each have been combined. A total of 228 chipped stone artifacts were collected. This includes one biface, one uniface, and 226 flakes, flake fragments, and debitage pieces. The onsite inspection suggests the total site density to be greater than 200 artifacts. The biface is of Knife River Flint and probably represents the tip of a small projectile point. Unfortunately, no notch pattern is available for study so the biface is considered nondiagnostic. The uniface is made from an interior flake of Knife River Flint and shows evidence of form shaping. No use wear



Northeast



Southeast

LAKE SAKAKAWEA INVENTORY
SITE 32ME539
CULTURAL MATERIAL SCATTER
Figure 6.46

AI

analysis was undertaken for this tool. In addition to these tools, one flake of Knife River Flint (probably removed from a core) shows flake scars evidencing the removal of small, narrow blades. The flake looks burin-like, but a preliminary inspection of the edges with the naked eye shows no visible damage.

The remaining 226 artifacts collected from the site include: 6 cores (or fragments of cores), 3 primary flakes, 42 secondary flakes, 102 interior flakes, and 113 debitage shatter and small chunks (most without any visible cortex). The majority of the collected artifacts are Knife River Flint; the exceptions include: two pieces of white chert (one flake and one debitage, heavily crazed), two grey porcellanite interior flakes, four pieces of clear chalcedony (flakes and debitage), one petrified wood flake, and one black porcellanite debitage. Besides the one piece of heavily crazed white chert; two pieces of Knife River Flint also show evidence of heating (crazing, color change). The majority of the flakes and debitage pieces range in size from 10-40 mm. A few of the pieces are greater than 40 mm in size; some are 5-10 mm in size. Those flakes 5-10 mm in size are thinning flakes. There are very few flakes which show evidence of retouching or use. The majority of the chipped stone artifacts are without patination. On many, lichens have begun to grow.

Cultural Affiliation: Unknown

Topographic Position: The chipped stone artifacts at 32ME539 are located on a flat hilltop at an elevation of 602 m above mean sea level. The ground visibility at the time of the inventory ranged between 50%-70%. The nearest water would have been an intermittent drainage located 123 m to the north. The depth of the site is unknown because no subsurface testing was undertaken.

Condition: The condition of the site during the inventory was judged to be good: less than 25% of the site destroyed. The source of the disturbance is the two-rut road crossing the site. At present, however, recreation traffic is limited. Agricultural activities and cattle grazing are also at a minimum. Although near Lake Sakakawea, the site is in no

immediate danger of destruction by erosion from lake waters since a series of smaller hills are between the lake and the site.

Integrity, Significance, and Management Recommendations: 32ME539 is considered to have integrity. The site context is considered good for additional data recovery. The site is potentially significant in terms of the criteria (especially 36CFR60.6d) for nomination to the NRHP, and further work is recommended. The site probably has subsurface potential, but the nature (artifacts, features), depth, and complexity of these buried deposits is presently unknown. Materials datable by absolute means could be present. At this point in time, a systematic program of evaluative testing is needed to resolve the significance issue.

32ME540

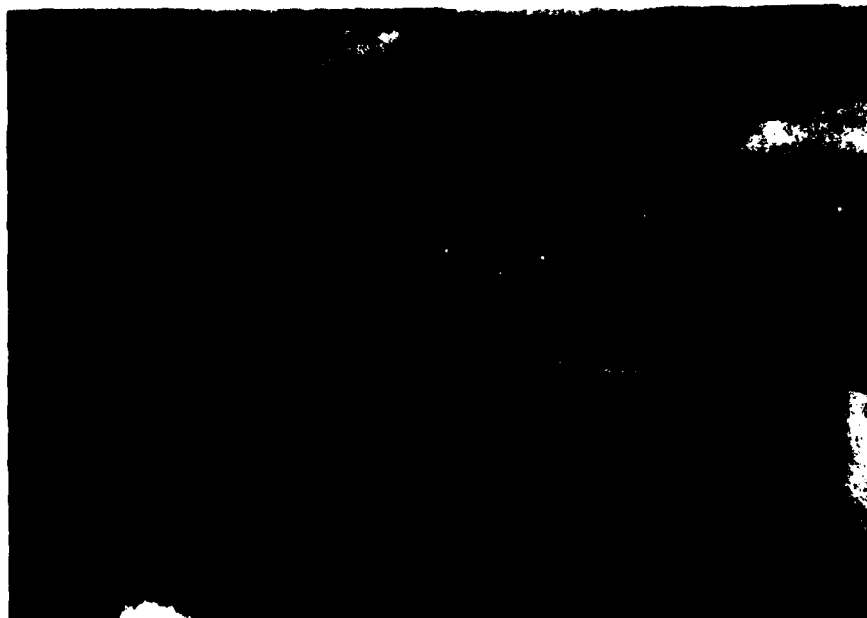
Site Type: Stone Circle (Figure 6.47)

Description: The site consists of one stone circle and a very light scatter of Knife River Flint flakes and shatter. The overall site size is 64 m². The stone circle measures 5 m N-S and 5.25 m E-W. There are approximately 29 stones around the perimeter of the circle which range in size from 10-50 cm. The stones are arranged in a single ring pattern. The stone circle and scatter of Knife River Flint artifacts may or may not be contemporaneous.

Cultural Affiliation: Unknown

Topographic Position: The stone circle is located on the top of a small ridge between two intermittent drainages at an elevation of 571 m above mean sea level. At the time of the inventory, 20%-40% of the ground surface was visible. The nearest water to the site is an intermittent drainage located approximately 123 m to the northeast. The depth of the site is unknown since no subsurface testing was done.

Condition: At the time of the inventory, the condition of the site was assessed as good: less than 25% of the site destroyed. Even though



Northeast



North

LAKE SAKAKAWEA INVENTORY
SITE 32ME540 STONE CIRCLE
Figure 6.47

AI

located in the Hazen Bay Public Use Area, recreation and agriculture activities are at a minimum.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ME541

Site Type: Stone Circle (Figure 6.48)

Description: The site consists of one stone circle bisected by a dirt road, one Knife River Flint uniface (collected), and five pieces of Knife River Flint debitage. The stone circle is 6 m N-S x 7.2 m E-W and consists of approximately 30 perimeter stones ranging in size from 15-30 cm. Vehicular damage to the site precludes a more detailed description of the feature. The overall site area is 45 m². The stone circle and cultural material scatter may or may not be contemporaneous.

Cultural Affiliation: Unknown

Topographic Position: The stone circle is situated on the level top of a west-trending finger ridge. Immediately west is a saddle, followed by a continuation of the ridge slope into a narrow, unnamed bay. The site is at an elevation of 589 m above mean sea level. The ground surface visibility was between 60%-80% at the time the site was recorded. The nearest water is an intermittent drainage located approximately 114 m to the south. The depth of the site is unknown since it was not tested.

Condition: At the time of the inventory, the site condition was assessed as fair: 25%-50% of the site destroyed. A field check of the site on August 1, 1982 revealed the site condition to be the same. Even though located in the Hazen Bay Public Use Area, recreation activities are at a minimum since this portion of the Use Area has restricted access.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas



Northwest



West

LAKE SAKAKAWEA INVENTORY
SITE 32ME541 STONE CIRCLE
Figure 6.48

A

are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

32ME542

Site Type: Cultural Material Scatter (Figure 6.49)

Description: 32ME542 is a scatter of chipped stone artifacts which includes three Knife River Flint interior flakes, one with a prepared platform and one with a prepared platform and a potlid, one Knife River Flint primary flake, two Knife River Flint chunks (one has two unifacially used edges), one grey porcellanite chunk, one pink igneous hammerstone,



Northwest



Southeast

LAKE SAKAKAWEA INVENTORY
SITE 32ME542
CULTURAL MATERIAL SCATTER
Figure 6.49



and one Knife River Flint uniface (collected). In addition, one fragmentary bone was noted. The bone was too fragmentary to be identified. The porcellanite chunk, as well as the Knife River flint artifacts, may have been imported to the site area with the loads of scoria used to gravel the roads. The artifact inventory may indicate core reduction. Heat treatment may be a component of this technology; however, the specimen exhibiting the potlid may have been brought in with the scoria also. The overall site size is 1,200 m².

Cultural Affiliation: Unknown

Topographic Position: The scatter of chipped stone artifacts is situated at the base of a gentle, west-trending ridge slope. The ridge divides two tributary drainages which empty into a small inlet. The site is located in a U.S. Army Corps of Engineers picnic area at Hazen Bay. Two roads cross the site, one of which has been upgraded and graveled with scoria. The artifacts are predominantly visible in the upgraded road. Two artifacts were found outside the graded areas between the juncture of the two roads. The site is located at an elevation of 573 m above mean sea level. The ground surface visibility at the time of the inventory was between 60%-80%. The nearest source of water is an intermittent drainage located approximately 62 m to the west. The depth of the site is unknown since it was not tested.

Condition: The site condition at the time of the inventory was assessed as very poor: more than 75% of the site disturbed. The site is subject to heavy and continual recreation use and upgrading by the COE. A field check of the site on August 1, 1982 showed the road to be re-bladed. Knife River Flint flakes were found in the backdirt resulting from the grading. In addition, the COE had recently installed concrete picnic tables approximately 20 m from the road.

Integrity, Significance, and Management Recommendations: As currently observed, the integrity of the site is severely disturbed. The ability of the site to provide additional data is unknown. The significance of the site cannot be determined on the basis of the inventory data. The data

lack sufficient detail. In particular, the site needs to be tested for subsurface cultural materials to document whether or not this is the original in situ location or whether the artifacts have been transported into the area in the gravel loads used to upgrade the roads.

32ME543

Site Type: Cultural Material Scatter and Pit (Figure 6.50)

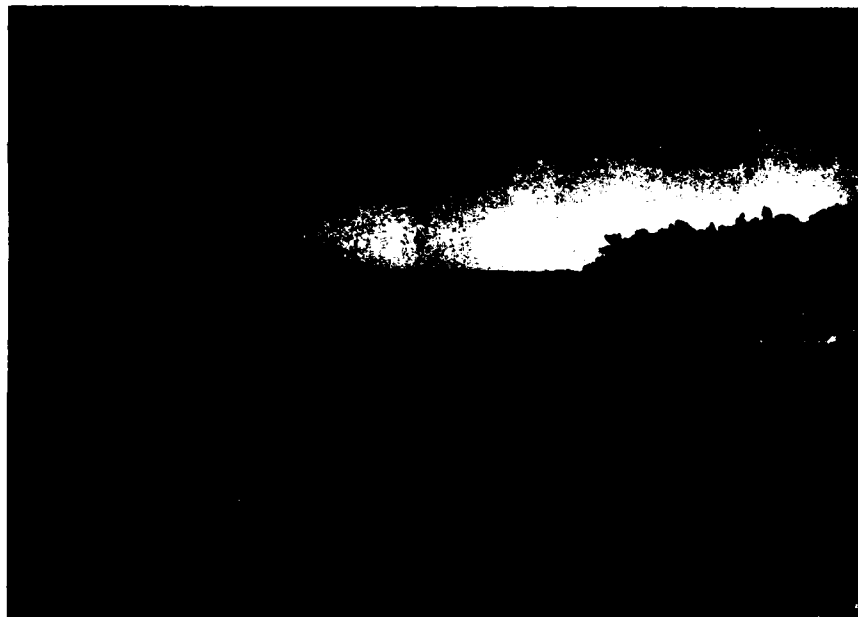
Description: 32ME543 consists of an extensive and possibly continuous scatter of buried cultural materials located on the top of a large Missouri River "break" bluff. Cultural materials on top of the bluff are visible in gopher hole backdirt and along the bluff edges where the soil is thinner and vegetation is sparse. Some cultural materials were noted in adjacent ravines. Whether the material in the ravines represents separate site areas or slopewash from the bluff top above could not be substantiated. The only features visible on the surface include two depressions. One is located on the extreme western tip of a ridge finger off the bluff and measures 2.5 m by 2.5 m. Several flakes of Knife River Flint are scattered about the depression. This depression is postulated to be a possible eagle trapping pit. The second depression is quite small (1 m x 1 m), and no function can be postulated at present time. The overall size of the site is estimated at 980,000 m².

Cultural materials from the site include finely executed flakes and tools (unifaces and utilized flakes), pottery, and bone (both burned and unburned). Cultural materials were collected from the surface out of the backdirt of gopher holes and from one shovel test pit. Artifacts collected from the surface include: three cores, one primary flake, three secondary flakes, eight interior flakes (utilized), four debitage and/or chunks, and two unifaces. With the exception of one quartzite chunk, all of the artifacts are of Knife River Flint.

Artifacts collected out of rodent burrows include: six interior flakes (all Knife River Flint), one piece of debitage (Knife River Flint), three pottery sherds, and four pieces of bone. Artifacts collected from



East



North

LAKE SAKAKAWEA INVENTORY
SITE 32ME543
CULTURAL MATERIAL SCATTER
Figure 6.50

si

the shovel test include: one core, one primary flake, five secondary flakes, three interior flakes, four debitage pieces, and one piece of bone (unidentifiable). All of the chipped stone recovered from the test hole is Knife River Flint. Out of all of the collected artifacts, very little patination occurs. Two of the pieces of Knife River Flint are burned. All of the chipped stone flakes are finely executed. In particular, the two unifaces are finely shaped. No use wear analysis was completed for the utilized edges.

The three pottery sherds are described below (Section 6.2). All three are body sherds. The exact ware is unknown.

The bone collected from the site includes bison and either cow or elk. The piece which is either cow or elk exhibits both impact scars and cut marks. The cut marks were almost certainly left by metal tools. This bone suggests that both butchering and processing activities took place at the site.

Cultural Affiliation: The presence of cut marks attributable to metal tools indicates that at least some portions of the site date to a Post-Contact period. This would indicate a Plains Village Coalescent Tradition. The variant could be either Post-Contact or Disorganized and the phase either Heart River or Knife River. Simple-stamped pottery was produced in both phases. Unfortunately, since no rims were located to indicate pottery type, a more exact date is difficult to pinpoint.

Topographic Position: The cultural material scatter is located on a bluff near the Missouri River channel, now flooded to form Lake Sakakawea. The elevation of the site ranges from 577 to 616 m above mean sea level. The average elevation is 597 m. Since the cultural material scatter is so large, the distance to any one nearest source of water is difficult to judge. Two large drainages flank the bluff on both the east and west. From the center of the bluff, access to either of these drainages would be approximately 700 m. At the time of the inventory, ground visibility ranged from 20%-60%. Based on the one shovel test pit, the depth of the site is estimated to be between 9-18 cm below the present ground surface.

Flakes of Knife River Flint and one piece of bone were found in the test pit. The soil in the shovel test pit was recorded as a light brown silty loam. A more detailed analysis of the strata was not completed.

Condition: The condition of the site at the time of the inventory was recorded as good: less than 25% of the site destroyed.

Integrity, Significance, and Management Recommendations: 32ME543 has integrity. The potential of the site to add further information on economic adaptations and cultural affiliations is considered excellent for this ecosystem (Upland Grassland). The integrity of the site is protected since recreation and agricultural activities associated with the Hazen Bay Public Use Area are restricted in this portion of the recreation area. Given the diversity, number, and quality of the cultural materials and the fact they are buried, this resource is recommended as potentially significant in terms of the criteria (especially 36CFR60.6d) for nomination to the NRHP. If recreational and agricultural activities continue to be restricted to the present level, then immediate data recovery is not suggested. Should such activities increase, if the COE plans any dirtwork or if gopher activity increases, then such impacts should be mitigated immediately with a data recovery program.

32ME550

Site Type: Other Rock Features (Figure 6.51)

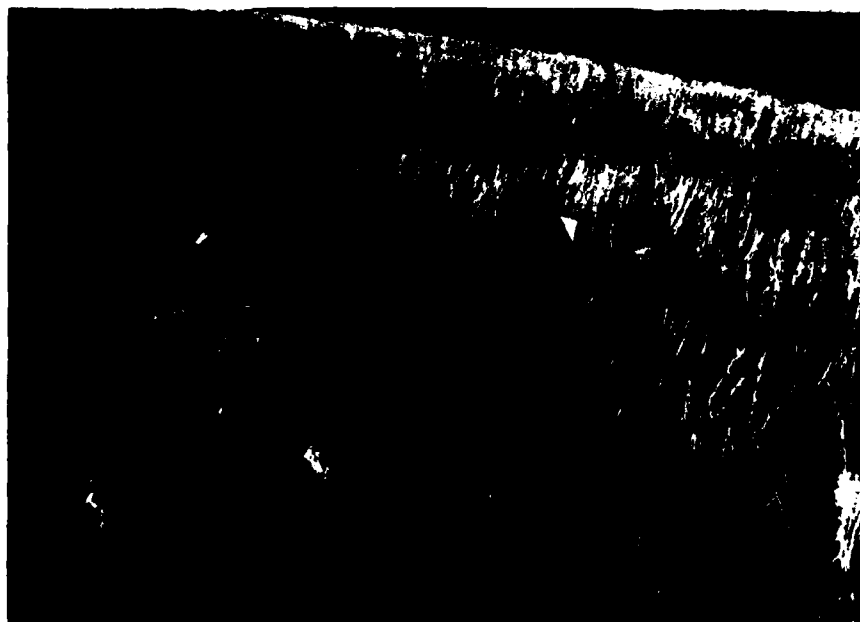
Description: This site is comprised of a large stone cairn. The cairn measures 2.70 m N-S and 3.10 m E-W. There are 31 stones in the cairn, and they range in size from 10-40 cm. The overall site size is 8 m².

Cultural Affiliation: Unknown

Topographic Position: The stone cairn is located on the top of a finger ridge. A deep wooded gully is located directly (60 m) to the southwest. The nearest source of water, an intermittent drainage, would also be in this gully. The site is located at an elevation of 602 m above mean sea



North



Northwest

LAKE SAKAKAWEA INVENTORY
 SITE 32ME550 STONE CAIRN
 Figure 6.51

SI

level. The ground surface visibility was between 20%-40% at the time of the inventory. The depth of the site is unknown since no subsurface testing was done.

Condition: At the time of recording, the condition of the site was judged to be good: less than 25% of the site destroyed. The central stones of the cairn have been displaced creating a shallow depression. The disturbance appears to be cultural (i.e., pothunting) and not natural (i.e., erosion). The displaced stones remain adjacent to the cairn on the southeast side.

Integrity, Significance, and Management Recommendations: The stone cairn at 32ME550 has integrity as currently observed because there is a recognizable spatial arrangement of stones. The arrangement and topographic position could ultimately provide information on site function(s) and settlement pattern(s) for stone cairn sites. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site area is threatened by the destruction of the stone cairn through continued disturbance by pothunters. Also increased recreation traffic or agriculture practices would also threaten the integrity of the site.

The significance of the stone cairn at 32ME550 cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate single and multiple stone cairn sites to be present. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete. This situation results from the lack of a comprehensive research design for the stone cairn site type or the stone cairn as associated with the stone circle site type. Although hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork, the recommendation is made that, for the present, such work include at least a detailed

description of site environment; detailed measurements and mapping of cairn size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features.

32ME551

Site Type: Stone Circle (Figure 6.52)

Description: The site is composed of one feature, a stone circle. The circle measures approximately 5 m in diameter and is composed of 25 stones arranged in a single ring pattern. The stones range in size from 15-40 cm. The overall site size is 25 m². The stone circle at 32ME551 may or may not be contemporaneous with the cultural material scatter at 32ME543.

Cultural Affiliation: Unknown

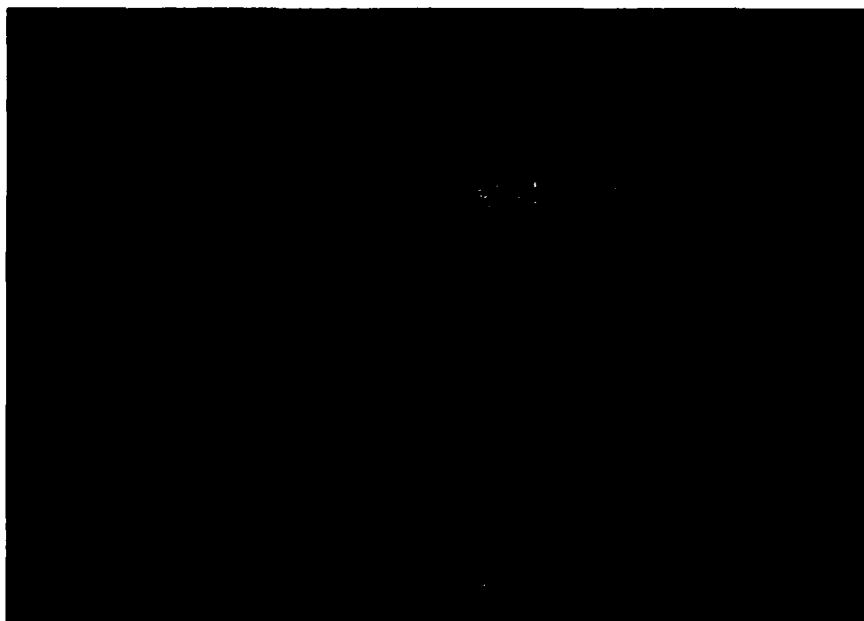
Topographic Position: The stone circle is situated on the top of a minor finger ridge that is flanked by two drainages now flooded by Lake Sakakawea. The site is located at 611 m above mean sea level. The ground surface visibility at the time of the inventory was between 20%-30%. The nearest sources of water are two intermittent drainages located approximately 100-150 m to the west and east of the ridge. The depth of the site is unknown since no subsurface testing was done.

Condition: At the time of the inventory, the condition of the site was assessed as good: less than 25% of the site destroyed. Recreation traffic and agriculture activities are at a minimum in the area.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features



Northwest



East

LAKE SAKAKAWEA INVENTORY
SITE 32ME551 STONE CIRCLE
Figure 6.52

SI

are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

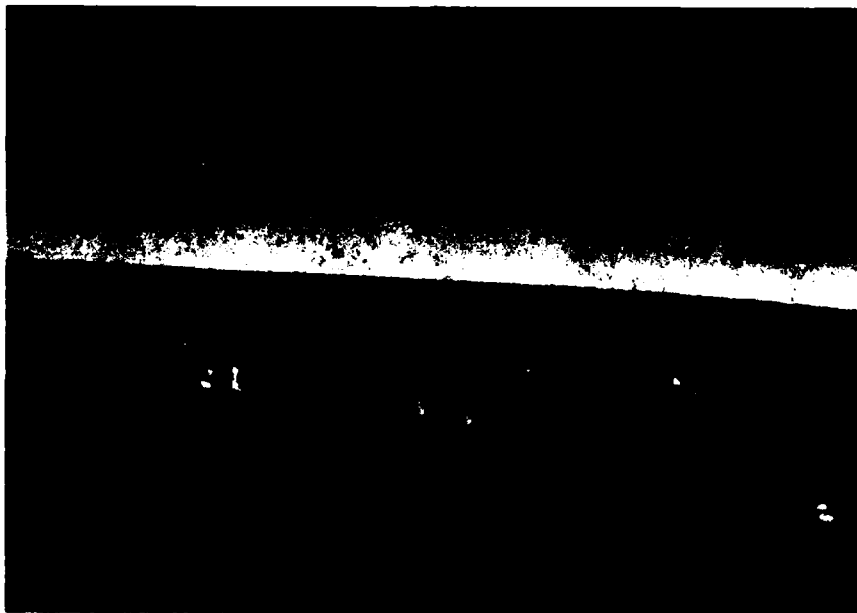
32ME552

Site Type: Stone Circle (Figure 6.53)

Description: 32ME552 consists of one stone circle and associated Knife River Flint debitage. The stone circle measures 4 m N-S x 4 m E-W. The stones in the circle number 16 and range in size from 10-30 cm. The stones are arranged in a single ring pattern. The stone circle and cultural material pattern may or may not be contemporaneous.



Northwest



North

LAKE SAKAKAWEA INVENTORY
SITE 32ME552 STONE CIRCLE
Figure 6.53

SI

Cultural Affiliation: Unknown

Topographic Position: The stone circle and Knife River Flint debitage are located on the top of a small finger ridge. The ridge is flanked on three sides by small intermittent drainages. The site is located at an elevation of 586 m above mean sea level. At the time of the inventory, 40%-60% of the ground was visible. The nearest sources of water would be the intermittent drainages located approximately 35 m in every direction but north. The depth of the site is unknown since no subsurface testing was done.

Condition: The condition of the stone circle site at the time of the inventory was assessed as fair: 25%-50% of the site destroyed. Previous disturbance to the site is suggested by the low number of stones and their irregular displacement. Although the site is within the Hazen Bay Public Use Area, recreation in the area is restricted. Agriculture activities are also restricted.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity as currently observed because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is

recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned (for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that the present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined very carefully.

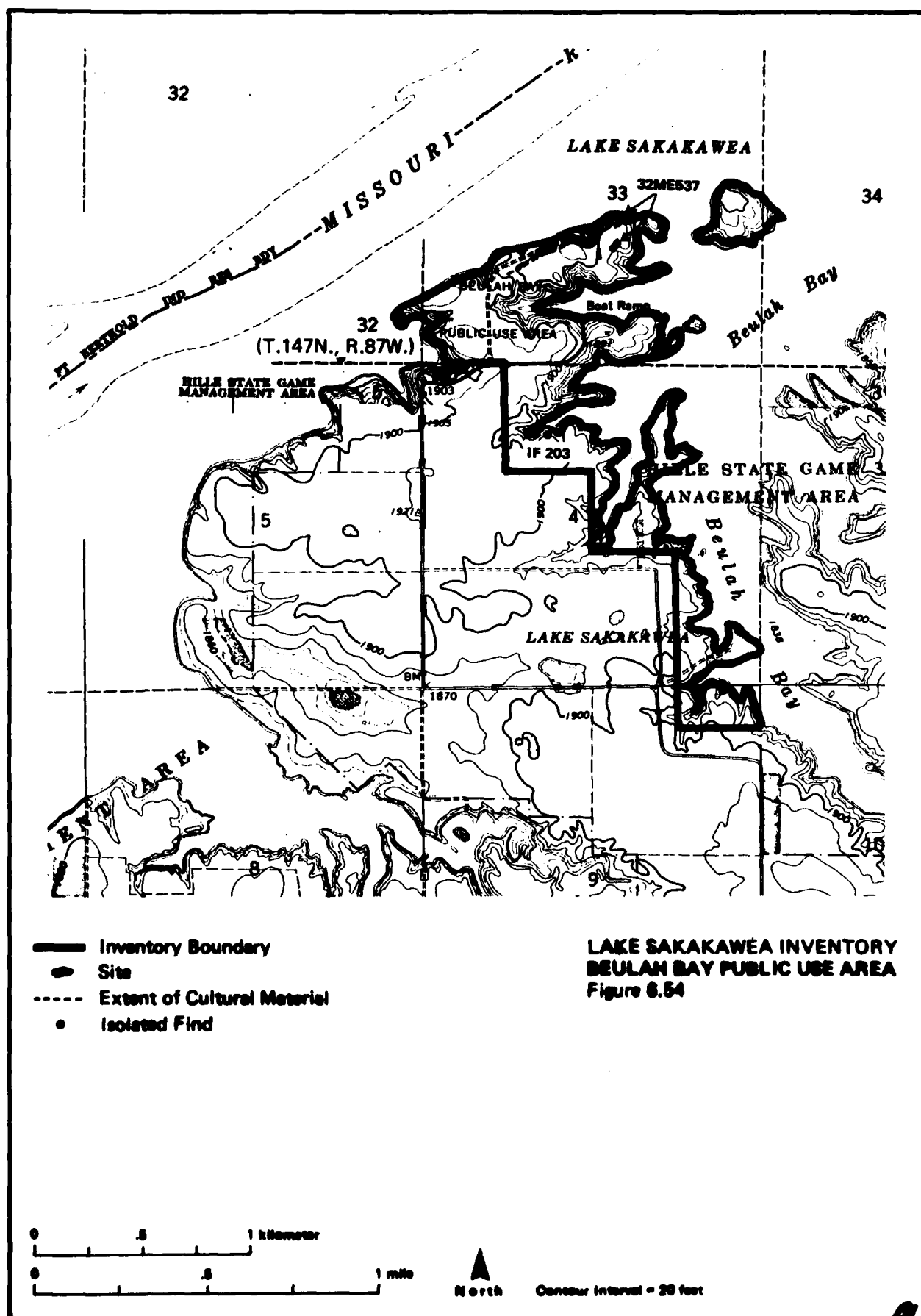
6.1.7 Beulah Bay Public Use Area

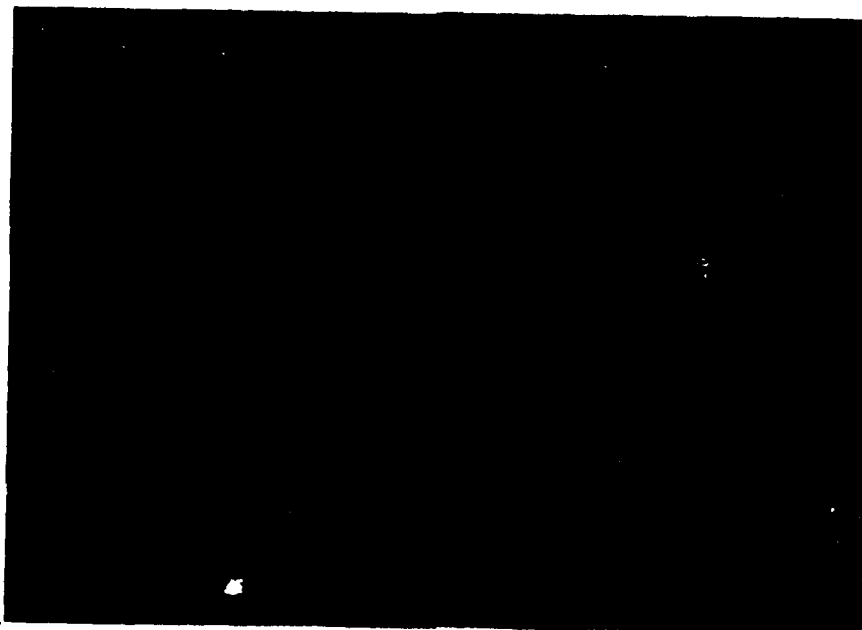
The Beulah Bay Public Use Area is located in Mercer County within Township 146N, Range 87W and Township 147N, Range 87W. One site (32ME537, a cultural material scatter), and one isolated find, IF 203, were located (Figure 6.54). IF 203 is a biface similar to those classed as Besant and dating to the Late Plains Archaic (2500-1500 B.P.).

32ME537

Site Type: Cultural Material Scatter and Hearth (Figure 6.55 and 6.55a)

Description: 32ME537 is a cultural material scatter located on a gently sloping hilltop. The site is situated near intermittent drainages which are currently flooded by Lake Sakakawea. The scatter extends to, and is eroding out of, the cliff edge formed by the lake suggesting that at one time the site extended farther north. As currently observed, the overall site size is 6,500 m². The cultural materials are visible wherever the soil has been disturbed to any extent. This includes several roads, a





Northeast



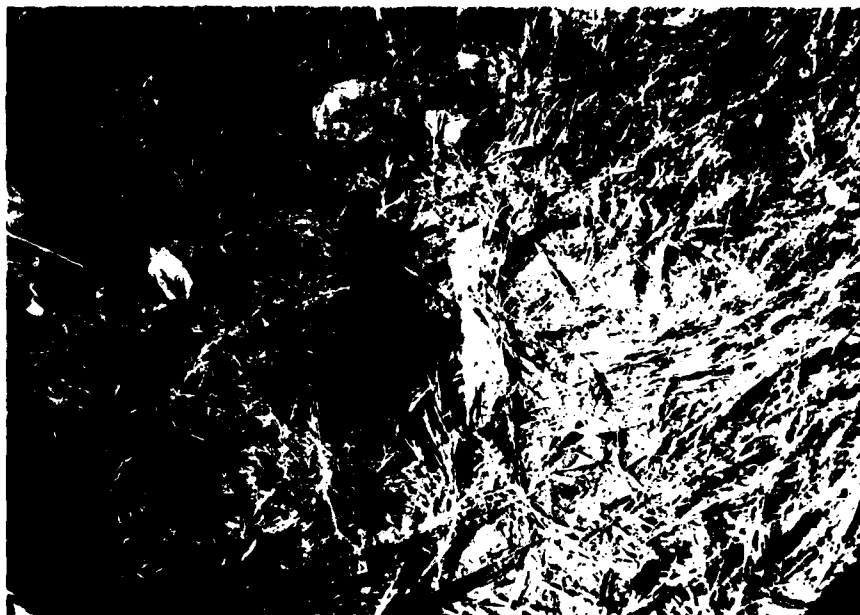
FIRE-CRACKED ROCK EXPOSED IN ROAD

LAKE SAKAKAWEA INVENTORY
SITE 32ME537
CULTURAL MATERIAL SCATTER
Figure 6.55

51



BISON BONE AND CHIPPED STONE ARTIFACTS EXPOSED ON ROAD



TEST HOLE

LAKE SAKAKAWEA INVENTORY
SITE 32ME537
CULTURAL MATERIAL SCATTER
Figure 6.55a

SI

plowed tree break, and gopher hole backdirt. Two features were located. These include a concentration of fire-cracked rock (probable hearth but no charcoal visible) in one of the roadbeds, and a scatter of six to eight, fist-size cobbles of Knife River Flint (probable cache) in the plowed tree break area.

Only artifacts exposed in one of the roadbeds were described. These occurred along a length of ~ 140 m and represent the densest visible portion of bone and artifacts. The bone was very fractured due to vehicular traffic and, therefore, appeared quite numerous. The bone pieces are diverse (teeth, ribs, long bones), and some show evidence of being burned. Much of the bone collected was too fragmentary for identification. The bone which could be identified is bison (B. bison). A complete listing and discussion of the collected bone is presented in Section 6.2.3. The collected bone was too fragmentary to identify traces of cultural modification; however, the presence of tools on the site suggests that this idea needs to be explored more fully. The artifacts include two primary flakes, three secondary flakes, eight interior flakes, one primary debitage scatter, one secondary debitage shatter, and seven tools or bifaces. The tools and bifaces were collected. The cobbles in the cache are all Knife River Flint. Several of them may have been tested, but this is hard to document since the area has also been plowed. Pieces of fire cracked rock were also found along this stretch of road, but none of it could be identified.

Six shovel tests were dug all to a depth of 50 cm. Shovel Test #1 produced no artifactual materials. Shovel Test #2 encountered bone at 30 cm. Shovel Test #3 encountered bone and flakes at 20 cm. Shovel Tests #4, #5, #6 encountered bone between 20-30 cm.

Cultural Affiliation: Two bifaces were recovered from this site. One of the bifaces is small and probably corner-notched, the other a small side-notched biface that has been reworked. Both probably date to either the Woodland (A.D.0-900) or the Plains Villate (A.D. 900-1862) cultures. The surficial provenience of these two bifaces makes a specific assignment uncertain.

Topographic Position: The cultural material scatter is located on a gently sloping and grassy hilltop. The average elevation of the site is 580 m above mean sea level. The ground surface visibility of the grassy areas at the time of the inventory was between 40%-60%. The distance to the nearest source of water is unknown because of the inundation of the northern portions of the site. The nearest source of water to the south (~ 275 m) is an intermittent drainage now flooded by Lake Sakakawea. The six shovel tests revealed cultural materials to be located at 20-30 cm below the ground surface. The soil in the shovel tests is identified as a light brown silty loam, varying in degrees of compactness. A more detailed analysis of the strata was not made.

Condition: At the time of the inventory, the condition of the known site area was assessed as good: less than 25% had been destroyed.

Integrity, Significance, and Management Recommendations: The cultural material scatter as currently observed at 32ME537 has integrity. Data from the site could provide information about prehistoric site function, chronology, settlement pattern, diet, and tool technology. The integrity of the site is threatened by several factors: 1) the heavy erosion of the north side of the site by the wave action of the Sakakawea, 2) heavy and continual recreation traffic on a two-rut road which crosses the densest exposed portion of the cultural material scatter, 3) plowing of additional tree breaks by the U.S. Army COE which has occurred adjacent to the site, and 4) extension to the site area of the mechanical harvesting of grasses which is occurring to the south and west.

The resource, as observed, is potentially significant in terms of the criteria (especially 36CFR60.d) for nomination to the NRHP because of the diversity of the cultural materials, the fact that the site has depth, and the presence of two features. Additional testing is required to document the extent and complexity of said cultural materials, as well as to explore the possibility of additional features or the presence of pottery. It is possible that activity areas would be located and other buried features or pottery may offer dating potential. Due to the heavy recreation traffic, it is recommended that the road through the site be closed and the resource be investigated within the 1982 or 1983 season.

Metcalf (1951:Smithsonian Institution River Basin Survey site record form) recorded site 32ME70 in the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Sec. 33, T147, R87W. The site consisted of pottery sherds, flint flakes, and bone scattered in a field for a mile along the bluff edge. Cultural materials to a depth of 8" were noted. Metcalf felt that the site was not of enough value to excavate. Metcalf's scatter of cultural material for one mile could possibly include the materials recorded as 32ME537. For several reasons as stated above testing has been recommended for 32ME537.

6.1.8 Beaver Creek Public Use Area

The Beaver Creek Public Use Area is located in Mercer County within Township 146N, Range 88W. A total of seven sites were located during the inventory (Figure 6.56). This includes five cultural material scatters, one stone circle, and one site with both a cultural material scatter and a stone circle.

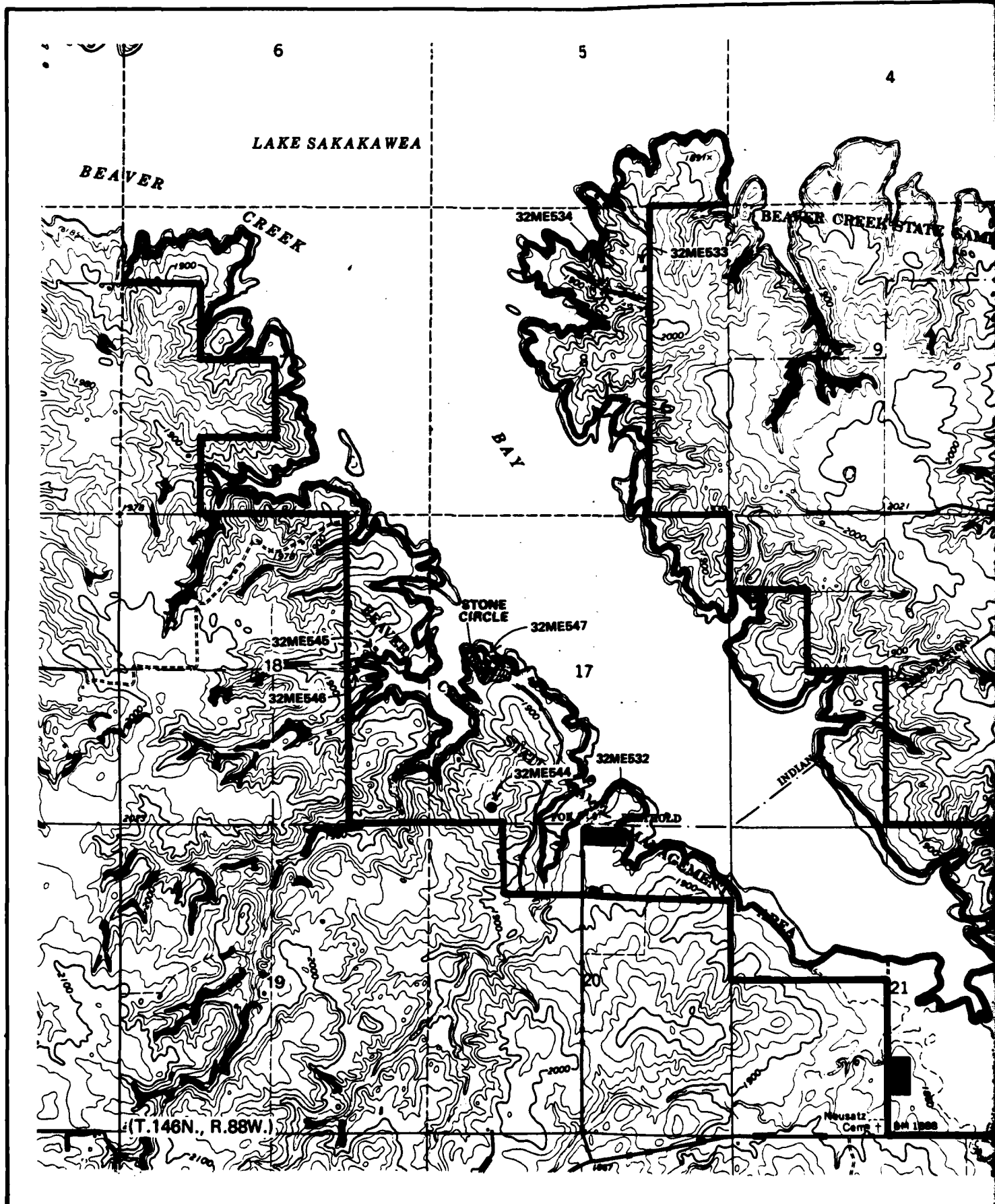
32ME532

Site Type: Cultural Material Scatter (Figure 6.57)

Description: The site consists of a small lithic scatter exposed in two road cuts leading to a boat ramp on Beaver Creek Bay. A total of 11 chipped stone artifacts were observed and recorded. With the exception of one debitage piece of grey-white banded chert, all of the artifacts are of Knife River Flint and include flakes and debitage shatter. The artifacts range in length from 1 cm to 4 cm. The overall site area is 150 m².

Cultural Affiliation: Unknown

Topographic Position: The site is located on the flat portion of a gentle hill at an elevation of 572 m above mean sea level. The ground visibility at the time of the inventory was assessed as 100% on the road, 40%-60% off the road. The nearest source of water would have been an intermittent drainage (now flooded by Lake Sakakawea) located approximately 100 m to the northwest. The depth of the site is unknown because no subsurface



LAKE SAKAKAWEA INVENTORY
BEAVER CREEK BAY
Figure 6.56

Inventory Boundary
Site



Contour Interval = 20 feet





North



North

LAKE SAKAKAWEA INVENTORY
SITE 32ME532
CULTURAL MATERIAL SCATTER
Figure 6.57

SI

testing was undertaken. The presence of numerous glacial cobbles suggests that site depth may be shallow.

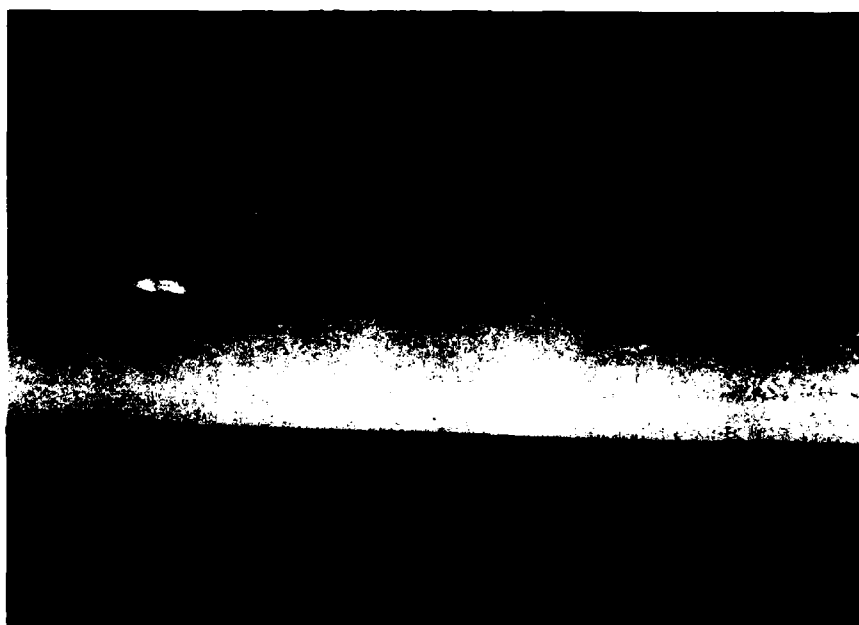
Condition: At the time of the inventory, the condition of the site was assessed as very poor: more than 75% of the site had been disturbed. Since the depth of the cultural materials has not been tested, this assessment may be too high. The causes of the disturbance are continual blading of the road and heavy recreation use (boaters, campers, etc.). A field check of the site on August 1, 1981 revealed the roadbed had been re-bladed. Cultural materials (Knife River Flint flakes) were still evident. Approximately 25-30 campers and boat trailers were parked over the site.

Integrity, Significance, and Management Recommendations: At the time of inventory, the integrity of the site was disturbed. The cultural materials are exposed in a bladed roadbed. The roadbed leads to a boat ramp so the area received heavy recreational use. Since no subsurface testing was done on land adjacent to the roadbed, the potential of the site to add further information remains unknown. Based solely on the data collected during the inventory, the significance of 32ME532 cannot be determined. The data lack sufficient detail. The site needs additional fieldwork to determine if buried cultural materials are present and, if they are, to determine the extent and complexity of these materials and their ability to answer questions of culture affiliation and ecosystem adaptation.

32ME533

Site Type: Cultural Material Scatter and Other Rock Features (Figure 6.58)

Description: The site is a lithic scatter of Knife River Flint and petrified wood. One feature was observed: a cairn of sodded stones 1.5 m N-S x 1 m E-W. The artifacts at the site include: four primary and secondary flakes (1-2 cm), four interior flakes, one interior thinning flake, one interior utilized flake, one utilized secondary flake, one quartzite hammerstone, and one graver made from chocolate brown petrified wood. The overall site size is 18 m².



Northeast

LAKE SAKAKAWEA INVENTORY
SITE 32ME533
CULTURAL MATERIAL SCATTER
Figure 6.58

AI

Cultural Affiliation: Unknown

Topographic Position: The cultural material scatter is located on the gently sloping top of a ridge. The elevation of the site is at approximately 599 m above mean sea level. The ground visibility at the time of the inventory was judged at 30%. The nearest water would be several intermittent drainages all located approximately 250-300 m to the west, north, and east. The depth of the site is unknown since no testing was done.

Condition: At the time of the inventory, the condition of the site was assessed as good: less than 25% disturbed.

Integrity, Significance, and Management Recommendations: The cultural material scatter at 32ME533 has integrity as currently observed. The integrity is threatened by erosion, vehicular traffic, and cattle grazing.

Based solely on the data collected during the inventory, the significance of 32ME533 cannot be determined. Since the known site area was assessed to have integrity, a potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork for the determination of significance is recommended. Each year, an increasing number of cultural material scatters are inventoried in the breaks and uplands adjacent to the Missouri River trench. Many questions concerning culture affiliation and ecosystem adaptation remain unanswered. Additional fieldwork at 32ME533 should test for the extent and diversity of any buried materials to see if this resource could provide answers to any of the above questions. Buried activity areas may provide clues to site functions and possibly also absolute dates.

32ME534

Site Type: Cultural Material Scatter (Figure 6.59)

Description: The site consists of two lithic concentrations on a north-westerly sloping ridge. The lithics are exposed in a road which leads to



West



West

LAKE SAKAKAWEA INVENTORY
SITE 32ME534
CULTURAL MATERIAL SCATTER
Figure 6.59

SI

a boating ramp at the confluence of Beaver Creek Bay and Lake Sakakawea. There were approximately 62 artifacts observed in lithic concentration "A." Most of the material was brown petrified wood or Knife River Flint. A white marbled chert was also present. Interior flakes, ranging from 1-2 cm in length were scattered throughout the concentration. A concentration of seven thinning flakes, 7-9 mm, was noted, in addition to broken flakes, chunky debitage, two fragments of bifaces, several pieces of bone fragment, and one biface midsection. Two pieces of purple glass were present. The concentration of lithics designated as "B" was composed of Knife River Flint broken flakes and chunky debitage. The two concentrations are located on the same ridge and have been combined into one site. The overall site area is 1,500 m².

Cultural Affiliation: Unknown

Topographic Position: The site is located on a gently sloping northwest-trending ridge on the east side of Beaver Creek Bay. The site is at an elevation of 597 m above mean sea level. The ground surface visibility at the inventory was recorded as 100% on the road, 0%-10% off the road. The nearest water would be two intermittent drainages located on either side of the ridge (north and south) approximately 175 m distant. The depth of the site is unknown since it was not tested.

Condition: The condition of the site at the time of the inventory was assessed as poor: 50%-75% of the site had been disturbed. Since the extent of the site (both surficial and subsurface) has not been determined, this estimate may be high. The cause of the disturbance is from recreation traffic using the road.

Integrity, Significance, and Management Recommendations: The site, 32ME534, is assessed to have integrity, although portions of the integrity may be disturbed. The spatial arrangement of the artifacts in the roadbed is probably disrupted. Other spatial arrangements, as well as features, may be visible on other portions of the site. Such spatial arrangements may provide clues to site functions. Buried artifacts may provide information on chipped stone tool technology.

Based solely on the data collected during the inventory, the significance of 32ME534 cannot be determined. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork to determine significance of the site is recommended. Each year, an increasing number of cultural material scatters are inventoried in the breaks and uplands adjacent to the Missouri River trench. Many questions concerning culture affiliation and ecosystem adaptation remain unanswered. Additional fieldwork at 32ME534 should test for the extent and diversity of buried materials to see if this resource could provide answers to any of the above questions. Buried activity areas may provide clues to site functions and possibly absolute dates.

32ME544

Site Type: Cultural Material Scatter and Other Rock Features (Figure 6.60)

Description: 32ME544 consists of a cultural material scatter and two possible cairns. The artifacts recorded on the site total 27 and include (all Knife River Flint unless noted otherwise): core (1), tested pebble (1), primary flake (1), primary debitage (1), secondary flake (1), secondary debitage (5), interior flake (6), interior debitage (3), secondary debitage, use and retouch (2), secondary debitage edge battering (1), interior flake, use and retouch (1), hammerstone (2), chalcedony biface fragment (1), and red chert debitage (1). The artifact inventory represents a full core reduction sequence. The core material is tabular.

Of the two cairns, the northern cairn is 2 m N-S x 2 m E-W and has 35 stones ranging in size from 10 cm to 95 cm. The 95-cm stone is located in the west-central portion of the cairn. The southern cairn is 1.5 m N-S x 1.5 E-W and has 17 stones ranging in size from 10-100 cm. The 100-cm stone is located in the SW corner of the cairn. The two largest (95 and 100 cm) stones in each cairn appear to be part of an outcrop of glacial erratics and were probably utilized in situ. The overall site area is 2,444 m².



Northwest



SOUTH STONE CAIRN

LAKE SAKAKAWEA INVENTORY
 SITE 32ME544
 CULTURAL MATERIAL SCATTER
 Figure 6.60

SI

Cultural Affiliation: Unknown

Topographic Position: The cultural material scatter and two possible cairns are located on a gently sloping hilltop overlooking an inlet of Beaver Creek Bay. The site is at an elevation of 605 m above mean sea level. Approximately 60%-80% of the ground was visible at the time of the inventory. The nearest water is an intermittent drainage (now flooded by Lake Sakakawea) located 400 m to the east. The depth of the site is unknown because no subsurface testing was done. The presence of glacial boulders suggests that the site may be shallow.

Condition: The condition of the site at the time of the inventory was assessed to be fair: 25%-50% destroyed.

Integrity, Significance, and Management Recommendations: 32ME544 is assessed to have integrity since there is still a recognizable core reduction sequence at the site. The spatial integrity of artifacts may be disturbed from erosion, vehicular traffic, and cattle grazing. During inventory, the significance of 32ME544 was unknown. Testing for subsurface cultural materials needs to be done before site significance can be evaluated.

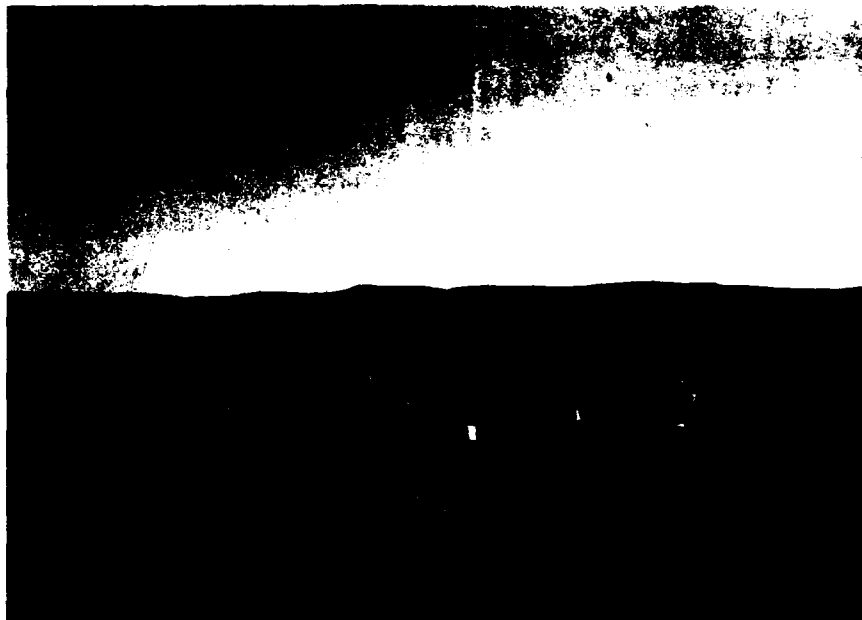
32ME545

Site Type: Stone Circle (Figure 6.61)

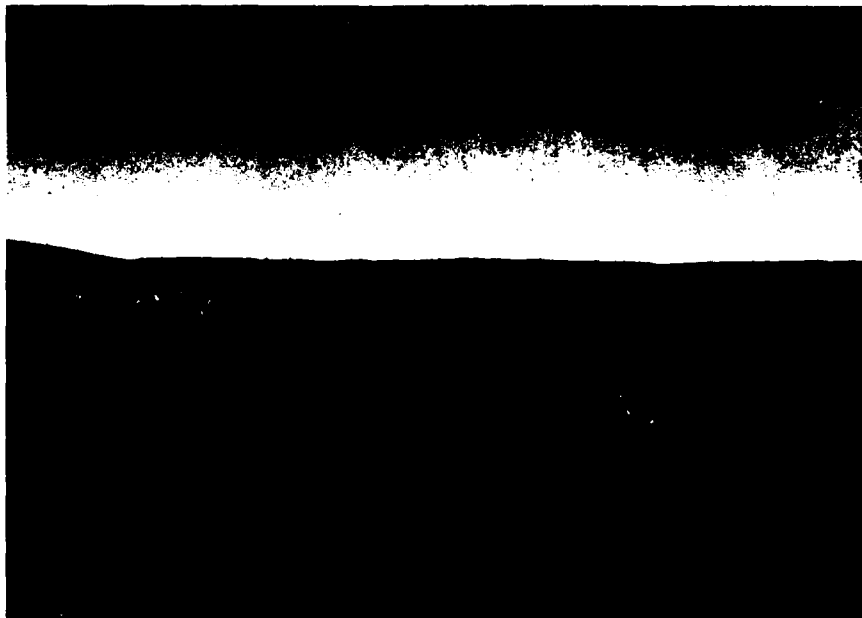
Description: 32ME545 is a single stone circle site. The stone circle is 5.7 m N-S x 5.5 m E-W and consists of approximately 41 perimeter stones and 3 interior stones. The stones range from 5-40 cm in size. The circle appears to be a single ring arrangement. The overall size of the site is 31 m².

Cultural Affiliation: Unknown

Topographic Position: The stone circle is situated on the top of a gentle, south-trending ridge spur overlooking a minor inlet which empties



East



Northeast

LAKE SAKAKAWEA INVENTORY
SITE 32ME545 STONE CIRCLE
Figure 6.61

SI

into Beaver Creek Bay. The circle is at an elevation of 575 m above mean sea level. At the time of the inventory, the ground surface visibility was between 60%-80%. The nearest source of water would be an intermittent drainage (now flooded to form the minor inlet) located approximately 62 m to the south. The depth of the site is unknown since no subsurface testing was done.

Condition: The condition of the site at the time of the inventory was assessed as good: less than 25% destroyed. Cattle are grazing in the area, and the site is near a two-rut dirt road. Both activities could disturb the site.

Integrity, Significance, and Management Recommendations: The stone circle features have integrity, as currently observed, because there are recognizable spatial arrangements of stones. The arrangements could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circle features were abandoned, the stone patterns approximated a perfect circle, then the arrangements of stones are reasonably undisturbed. If present, subsurface cultural materials or features are also assumed to have integrity. The integrity of the known site areas are threatened by the destruction of the stone circle features through erosion by wave action from Lake Sakakawea, recreation traffic, agriculture activities, and U.S. Army Corps of Engineers maintenance of public use areas.

The significance of the stone circle features cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned

(for instance, at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements and mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features. The contemporaneity of the stone circle features with stone cairn features and cultural material scatters is unknown. The relationships between these features and scatters should be examined.

32ME546

Site Type: Cultural Material Scatter (Figure 6.62)

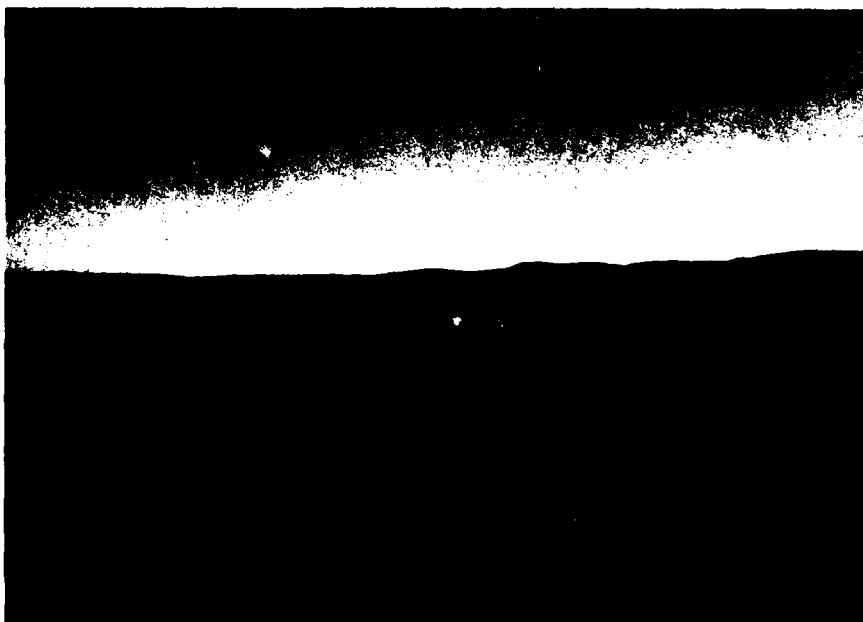
Description: 32ME546 is a light scatter of chipped stone artifacts. The artifacts total six and include (all are of Knife River Flint): one pebble core (56 cm in length), one secondary flake (20 mm in length), three interior flakes (~ 10 mm in length), and one interior distal blade fragment (15 mm in length). Seven flake scars are evident on the pebble core. The six artifacts are very dispersed. The overall site area is 432 m². No artifacts were collected. The pebble core was located 10 m from the COE area boundary. Since the land outside the boundary is on the Berthold Indian Reservation (probably belonging to the Nathan Little Soldier family), this area was not examined for any additional cultural materials.

Cultural Affiliation: Unknown

Topographic Position: The artifacts at 32ME549 are dispersed over the top and north slope of a gentle east-trending finger ridge overlooking Beaver Creek Bay. The elevation of the site is 569 m above mean sea level. The ground visibility at the time of the inventory was 60%-80%. The nearest source of water is a drainage channel now flooded by Lake Sakakawea located approximately 60 m to the north.



West



West

LAKE SAKAKAWEA INVENTORY
SITE 32ME546
CULTURAL MATERIAL SCATTER
Figure 6.62



Condition: The condition of the site at the time of the inventory was assessed as good: less than 25% of the site destroyed.

Integrity, Significance, and Management Recommendations: As currently observed, the integrity of the cultural materials at 32ME546 is intact. The cultural materials are exposed both in a roadbed and on the surrounding ridge. The area is subject to erosion, grazing cattle, and vehicular traffic. Based solely on the data collected during the inventory, the significance of 32ME546 cannot be determined. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended to determine the significance of the site. Each year, an increasing number of cultural material scatters are inventoried in the breaks and uplands adjacent to the Missouri River trench. Many questions concerning culture affiliation and ecosystem adaptation remain unanswered. Additional fieldwork at 32ME546 should establish surface boundaries and test for the extent and diversity of any buried materials to see if this resource could provide answers to any of the above questions. Buried activity areas may provide clues to site functions and possibly absolute dates.

32ME547

Site Type: Cultural Material Scatter and Stone Circle (Figure 6.63)

Description: 32ME547 consists of a cultural material scatter of chipped stone tools and core reduction materials and a stone circle. The scatter and the circle may or may not be contemporaneous. The overall site area is 29,600 m². The stone circle is 5.7 m N-S x 5.2 m E-W and consists of approximately 36 perimeter stones set in a double ring arrangement. There are no interior stones. The stones range in size from 10-40 cm. A total of 29 chipped stone artifacts were observed and recorded. These include: 3 cores, 1 primary flake, 4 secondary flakes, 12 interior flakes, 3 debitage, 2 chunks, and 4 bifaces. All of the artifacts observed are of Knife River Flint with the exception of 1 smoky-clear chalcedony secondary flake, 1 mottled white-clear chalcedony interior flake, and 1 mottled



North



East

STONE CIRCLE

LAKE SAKAKAWEA INVENTORY
SITE 32ME647
STONE CIRCLE AND
CULTURAL MATERIAL SCATTER
Figure 6.63

AI

white-orange chert secondary flake. Of the artifacts observed in the field, 14 were collected, including: 1 core, 1 primary flake, 4 secondary flakes, 4 interior flakes, and 4 bifaces. Most of the flakes observed range from 20-40 mm in length and 20-40 mm in width. The chert secondary flake (collected) and two of the interior flakes exhibit evidence of unifacial marginal retouch. One of the bifaces is side-notched with a fairly straight basal margin. Only the midsection remains for two of the bifaces so the notching pattern is not available for study. The remaining biface is lanceolate in shape with a basal notch.

Cultural Affiliation: One of the bifaces recovered from 32ME547 has a basal notch and is lanceolate in form. This biface is similar (although the basal notch may not be as deep) to lanceolate bifaces described as McKean (Frison 1978:Figure 5.32, 201-213). If this assessment is correct, the biface would date to the Middle Plains Archaic (5000-2000 B.P.). A second biface recovered from the site is side-notched. The side-notched biface is probably assignable to periods of cultural adaptation following the Archaic. Along the middle section of the Missouri River, this would include the major cultural periods termed the Woodland (A.D. 0-900) and the Plains Village (A.D. 1200-1845) (Wedel 1961; Willey 1966; Lehmer 1971; Lee 1980).

Topographic Position: The cultural material scatter and stone circle at 32ME547 are on a flat hilltop. This is a large bay immediately to the northwest which was undoubtedly a drainage system before being flooded by the lake. The site is situated at an elevation of 563 m above mean sea level. The ground surface visibility at the time of the inventory was between 60%-80%. The nearest water would have been an intermittent drainage flowing into Beaver Creek Bay (both now flooded) located approximately 130 m to the west. The exact depth of the site is unknown since no subsurface testing was undertaken. Since many of the artifacts were found undisturbed, soil areas (roadbeds, trampled areas around modern firepits, gopher hole backdirt, etc.), some depth is suggested.

Condition: The condition of the known site area at the time of the inventory was assessed as fair: 25%-50% of the site destroyed. Since the

boundaries and depth of the site are unknown, this estimate may be too high. The site is receiving impact from erosion, recreation traffic, grazing cattle, and burrowing rodents.

Integrity, Significance, and Management Recommendations: The stone circle at 32ME547 has integrity as currently observed because there is a recognizable spatial arrangement of stones. The arrangement could ultimately provide information on site function(s) and settlement pattern(s). If one assumes that when stone circles were abandoned, the stone patterns approximated a perfect circle, then the arrangement of stones at 32ML256 is reasonably undisturbed. The surface materials at the site are considered to have integrity because they can possibly add information about chronology and chipped stone technology for some of the cultural groups in the area. The spatial integrity of the surface chipped stone artifacts is probably disturbed. If present, subsurface cultural materials or features are also assumed to have integrity.

The significance of the stone circle at 32ME547 cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the site. Since the known site area was assessed to have integrity, potential for site significance can be assumed to exist. Based on this assumption, additional fieldwork is recommended for the determination of significance. Current studies in the Missouri River Drainage indicate stone circle sites to be abundant. These studies reveal that answers concerning the chronology, function, and cultural affiliation are incomplete and generally unsynthesized. This situation results from the lack of a comprehensive research design for the stone circle site type. Several research designs are now being planned

(for instance at the North Dakota State Historical Society). Hypotheses and test implications for specific research questions are not yet available as guides for additional fieldwork. It is recommended that present research work include at least a detailed description of site environment; detailed measurements mapping of circle size, stone size, stone placement, and stone depth; and testing for subsurface cultural materials and features.

A similar program of additional work is recommended for the cultural material scatter. Each year, an increasing number of cultural material scatters are inventoried and investigated in the breaks and uplands adjacent to the Missouri River Trench. Many questions concerning culture affiliation and ecosystem adaptation remain unanswered. The extent and diversity, both surface and subsurface, of the cultural material scatter should be defined. Buried activity areas may provide clues to site functions and possibly also absolute dates.

6.2 ARTIFACTS

6.2.1 Chipped Stone Tools

The tools discussed in this section have been classed generally as bifaces and unifaces. Bifaces are those tools exhibiting evidence of deliberate shaping on both surfaces; unifaces are on surface. No wear analysis was undertaken on any of the utilized tools. All of the tools were recovered from surficial contexts.

Besides the tools, cores, flakes, flake fragments, and debitage shatter were recovered. These artifacts were listed in the previous section containing the site descriptions. Most of the cores are tabular in shape. The remaining artifacts were classed quite simply as primary, secondary, or interior flakes, and as debitage shatter. The majority of the artifacts are interior flakes ranging in size from under 10 mm to between 10-20 mm. Many of these interior flakes could also be classed as thinning flakes.

Almost all of the artifacts recovered are of Knife River Flint. The range and variation in color and quality is tremendous. Color grades from clear amber to dark brown. Some of the material is quite transparent, other pieces opaque with mottling or banding. Knife River Flint is well documented as being ubiquitous throughout the area (Clayton et al. 1970). The Knife River Flint quarries in Dunn and Mercer Counties range approximately 6-36 miles from the farthest west (Beaver Creek Bay Public Use Area) inventory area. Individual cobbles seem to abound in some of the gravels exposed by the wave action of Lake Sakakawea. Many of these cobbles are tabular. Where the inhabitants of the sites identified during the inventory were obtaining their raw Knife River Flint is unknown. It would seem surprising if they were not utilizing both the quarry sites and the locally exposed gravels.

A total of 18 bifaces were collected (Figures 6.64-6.68; obverse, reverse, and cross-section views provided). Since no use wear analysis of these tools was undertaken, they have not been separated into artifact classes of knives, projectile points, etc. Only three of the bifaces are complete. With the exception of two, all of the bifaces are of Knife River Flint. Of the exceptions, one biface is of milky chalcedony, the other grey-brown chert. On 11 of the bifaces, the hafting element is still visible. Nine of these are side-notched, one corner-notched, and one basal-notched. The specimen with the basal notch is from 32ME547 and is lanceolate in form. This biface is similar (although the basal notch may not be as deep) to lanceolate bifaces described as McKean (Frison 1978:Figure 5.32, 201-213). If this assessment is correct, the biface would date to the Middle Plains Archaic (5000-2000 B.P.). The side-notched biface from 32ML256 is similar to those classed as Oxbow (Perino 1971:68, Plate 34). The cultural affiliation and age of the Oxbow points have been classed as within the Middle to Late Archaic (5200 \pm 130 years B.P., Ibid 68). Oxbow points have been previously reported in North and South Dakota. A third biface which probably dates from the Archaic period is IF 203 recovered from the Beulah Bay Public Use Area. This biface is like those that have been classed as Besant (Frison 1978:Figure 5.40, 213-223). This classification would place the biface in the Late Plains Archaic (2500-1500 B.P.). The remaining side-notched bifaces are from



A. 32ME538



B. 32ME536



C. 32ME534



D. 32ME544



ARTIFACTS DRAWN TO SCALE

LAKE SAKAKAWEA INVENTORY
CHIPPED STONE TOOLS – BIFACES
Figure 6.64



A. 32ME539



B. 32ME537

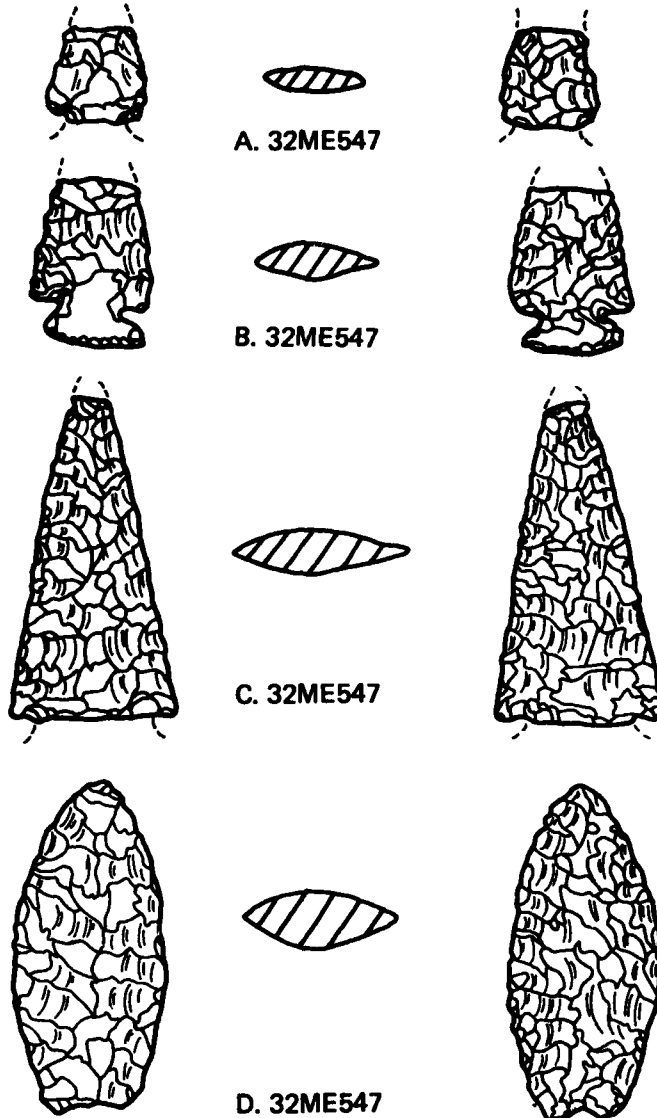


C. 32ME537

ARTIFACTS DRAWN TO SCALE

LAKE SAKAKAWEA INVENTORY
CHIPPED STONE TOOLS-BIFACES
Figure 6.65





A. 32ME547

B. 32ME547

C. 32ME547

D. 32ME547

ARTIFACTS DRAWN TO SCALE

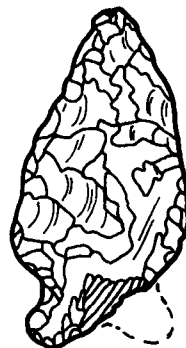
LAKE SAKAKAWEA INVENTORY
CHIPPED STONE TOOLS – BIFACES
32ME547
Figure 6.66



A. IF 201
Nishu Public Use Area



B. IF 204
Nishu Public Use Area



C. 32ML256

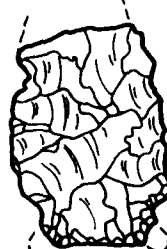
ARTIFACTS DRAWN TO SCALE

LAKE SAKAKAWEA INVENTORY
CHIPPED STONE TOOLS – BIFACES
Figure 6.67

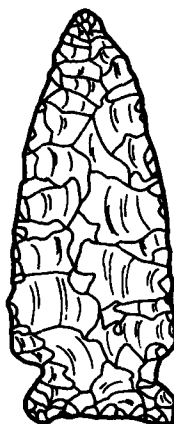




A. IF 202
Lake Sakakawea State Park



B. IF 205
National Guard Recreation Area



C. IF 203
Beulah Bay Public Use Area

ARTIFACTS DRAWN TO SCALE

LAKE SAKAKAWEA INVENTORY
CHIPPED STONE TOOLS – BIFACES
Figure 6.68



Sites 32ME536, 32ME537, 32ME538, 32ME547 and from isolated find locations 205 (National Guard Recreation Area), 201, and 204 (Nishu Public Use Area). The side-notched bifaces are probably assignable to the periods of cultural adaptation following the Archaic. Along the middle section of the Missouri River, this would include the major cultural periods termed the Woodland (A.D.0-900) and the Plains Village (A.D. 900-1862) (Wedel 1961; Willey 1966; Lehmer 1971). Side-notched bifaces, similar to those collected during the eastern Lake Sakakawea inventory, have been recovered from excavations with known contextual proveniences dating to both the Woodland (Alher et al. 1981) and Plains Village (Lehmer 1971) periods. Ahler et al. (1981:i) have stated that the bifaces from these two periods are visually indistinguishable. In light of the above information, since all of the bifaces were recovered in surficial contexts, no attempt has been made to place them in either one or the other of the Woodlands or Plains Village cultural periods. This same line of reasoning has also been applied to the small corner-notched biface recovered from the roadbed at 32ME537. This biface is undoubtedly assignable to cultural periods after the Archaic but, without a more controlled provenience, an exact date cannot be assigned. The small size of the piece of the reworked, side-notched biface from 32ME537 suggests that it is also assignable to later cultural groups along the middle Missouri.

A total of nine unifaces were collected during the inventory (Figures 6.69-6.71). All were recovered from surficial contexts, and all are of Knife River Flint. Some of the unifaces, especially those from 32ME543 and 32ML256 are exceptionally well executed. No analysis of the type of use wear evident on these tools was undertaken.

6.2.2 Pottery

Pottery sherds were recovered from 32ME538 and 32ME543. A total of 23 sherds were collected from 32ME538 and include 3 rim sherds (which fit together) and 20 body sherds. The sherds appear to be from one, possibly two vessels. The three rim sherds are probably Riggs Ware (Chris Dill 1982:Personal Communication) (Figure 6.72) and may be a variety of Riggs Pinched (Lehmer et al. 1978:203-204). Only three sherds were recovered

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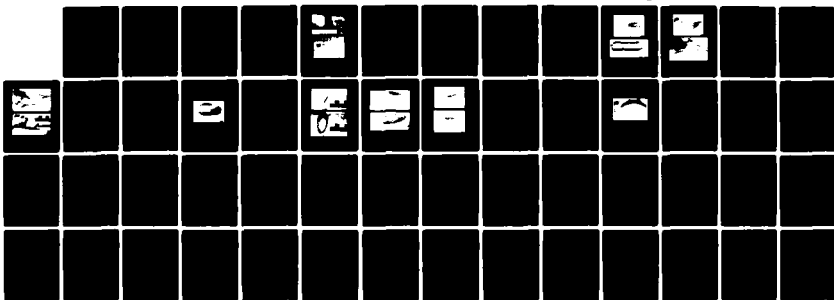
A CULTURAL RESOURCES INVENTORY OF EASTERN PORTIONS OF
LAKE SAKAKAWEA NORT. (U) SCIENCE APPLICATIONS INC
GOLDEN CO G MOORE 15 SEP 82 DACW45-81-C-0220

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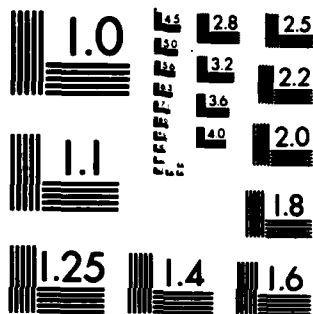
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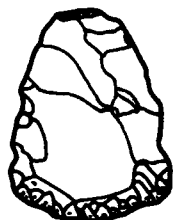
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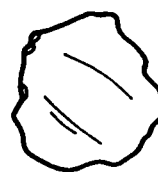
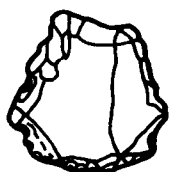
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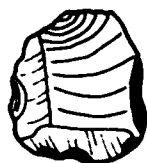
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A



A. 32ME540



B. 32ME542

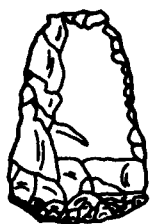


C. 32ME539

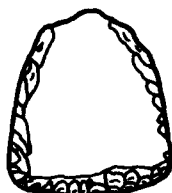
ARTIFACTS DRAWN TO SCALE

LAKE SAKAKAWEA INVENTORY
CHIPPED STONE TOOLS – UNIFACES
Figure 6.69





A. 32ME543



B. 32ME543

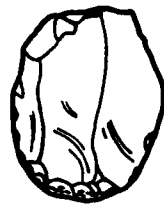


C. 32ME543
Utilized Flake

ARTIFACTS DRAWN TO SCALE

LAKE SAKAKAWEA INVENTORY
CHIPPED STONE TOOLS – UNIFACES
Figure 6.70

A.



A. 32ML256



B. 32ML256



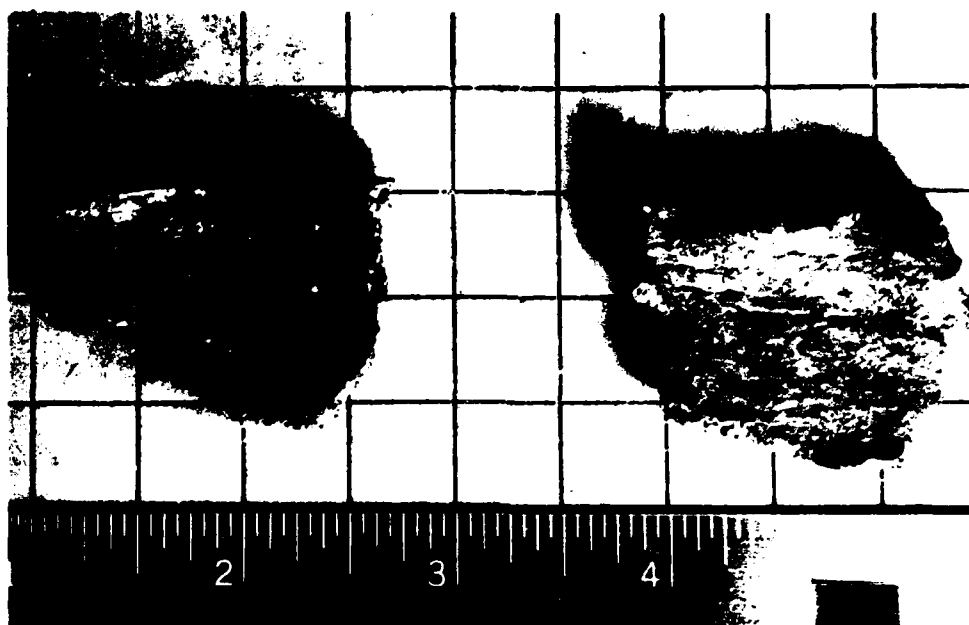
C. Nishu Public Use Area



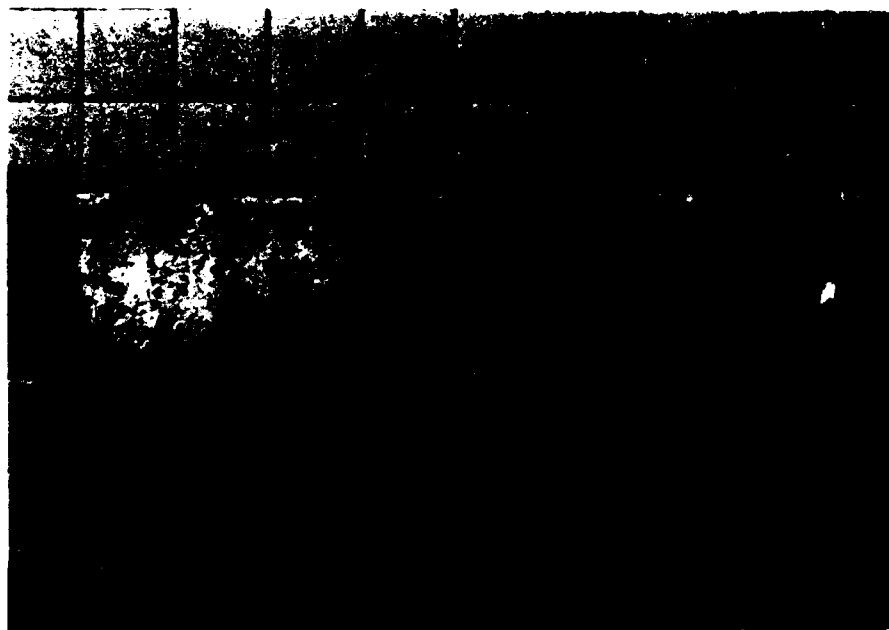
D. Nishu Public Use Area

ARTIFACTS DRAWN TO SCALE

LAKE SAKAKAWEA INVENTORY
CHIPPED STONE TOOLS – UNIFACES
Figure 6.71



INTERIOR SURFACE



EXTERIOR SURFACE

LAKE SAKAKAWEA INVENTORY
POTTERY RIMS FROM 32ME538
Figure 6.72

SI

from 32ME543. All three are body sherds. Two of the sherds appear to be from the same vessel, the third sherd from another. The ware category for these sherds is unknown. The following is a brief description of the recovered sherds. 32ME538: 3 rim sherds, 20 body sherds.

Method of Manufacture: probably lump modelled with final form finishing done with paddle and anvil.

Paste: Temper: The temper consists of grains (possibly decomposed granite) of quartz, feldspar, and mica. Most of the particles range in size from .25 mm to 2 mm, although grains of feldspar 2.5 mm to 4.0 mm are not uncommon. Much of the temper, particularly the mica, protrudes through and is visible on both the exterior and interior surfaces. The mica creates a glittering effect.

Texture: The paste is moderately mixed and is friable when broken.

Color: The paste color is an even dark grey.

Surface: Interior: The interior surfaces have been brushed and then smoothed and polished all over. The resulting effect is partially obliterated brush marks intermixed with irregular places of moderate polish. The interior surface is the same even dark grey as the paste.

Exterior: The exterior surfaces show evidence of finishing with a grooved paddle resulting in a simple-stamped pattern. Both the body sherds and rim sherds display the stamping. The color of the exterior surface varies from tan to the same even dark grey of the paste.

Form: Lip: The lip is slightly pointed towards an exterior surface and slopes gently inward to the interior surface. The lip is 9 mm thick.

Rim: In position on a vessel, the rim was probably slightly flared. The rim portion just below the lip is thickened to just slightly greater than 9 mm. This thickening is undoubtedly the result of the lip decoration technique.

Body: The vessel was probably globular in shape. The thinnest body sherd is 3.5 mm, the thickest 7.0 mm.

Decoration: The decoration occurs on the lip only. The decoration originates at the lip-rim juncture of the interior surface and continues to just before the lip-rim juncture of the exterior surface. The decoration appears to have been made by dragging a finger across the top of the lip leaving a narrow and somewhat wavy trough. The one complete trough visible on the collected rim is 5 cm in length.

32ME543

The paste and temper characteristics of two of the sherds recovered from 32ME543 are similar to those recovered from 32ME538. The quantity of mica as part of the tempering material seems to be less in these sherds. The interior surface on one sherd has been brushed and then smoothed over. The exterior surface of this sherd has spalled off. The exterior surface of the other sherd (only 11 mm in length) shows only a light brush mark. The interior surface of this sherd has spalled off. Both sherds are approximately 6 mm in thickness.

The remaining sherd from 32ME543 has the same tempering materials and grain size (quartz, feldspar, mica) as the previously described sherds, but there is not quite as much mica. The paste is well worked and compact, not friable. The color of the paste, as well as the interior and exterior surfaces, is light buff. There is a light grey core. The surfaces have been brushed and smoothed, yet they have a dull matte and grainy appearance as if any polish originally present has eroded away. The particles of temper prominently protrude through both surfaces. The sherd is 8 mm thick. There is no decoration visible.

6.2.3 Bone

Only four sites were located during the survey of Lake Sakakawea that contained culturally modified bone elements: 32ME535, 32ME537, 32ME543, and 32ME256. A total of only 18 elements were found to be either

certainly or possibly culturally modified. Of this total, 12 elements were collected from Sites 32ME535 (5) and 32ML256 (7). The remaining six elements were from Sites 32ME537 (three) and 32ME543 (three).

Much of the collected material is Artiodactyl (Bovid or Cervid), and probably mostly Bovid (Bison or domestic cow). However, either the identifying characteristics were not present or the state of preservation was such that one cannot be certain of the taxonomy of many elements.

Bone elements at both sites, 32ME535 and 32ML256, exhibit cut marks, apparently the result of historic butchering activities; because these cuts were deep and narrow, they were almost certainly left by metal tools. The rest of the bone found at Sites 32ML535 and 32ME537 exhibited no cut marks and, therefore, cannot be classified historic or prehistoric through present evidence alone.

No assemblage patterns exist for this material since it was found during inventory activities and did not result from excavation. Without specific provenience data and without a fuller assemblage base, no functional interpretations can be made for the material. Since there are cut marks on some of the elements (and all 18 exhibit some indication of cultural modification), we can assume they derive from at least some kind of procurement system. However, without data from complete assemblages, we have no way of knowing the number of individuals exploited per site, the range of species present per site, or even the percentage of complete individuals present per site. Without such information, we cannot tell what the people at each site were doing besides exploiting this material in some way.

A number of workers have dealt with the problem of cultural modification of bone on the Northern Plains. White initially presented data he felt delineated kills from residential areas, based on the presence or absence of specific bone elements (1954). Since then, his work has been modified and, in some cases, discarded after workers in other areas, using different diagnostic criteria, found his system naive in terms of assumptions used to separate kill sites from residential sites. Nevertheless,

this work formed the theoretical basis for later work, in the Americas, Europe, and Africa.

Most of the recent work in North America has attempted to articulate the presence of man before Clovis. The supposed "pre-Clovis" question has revolved around the case for and against a bone technology that existed prior to one of the stones in the Americas. Major proponents of this thesis have been Bonnicksen (1979), Johnson (In Press), Morlan (1981), and others not as intimately involved with the argument. Frison's ideas of butchering with bone tools have dominated research in the Northern Plains since his Glenrock (1970) monograph. Since then, a number of workers--including Johnson at Lubbock Lake, Texas; Stanford in eastern Colorado; and Wheat, also in eastern Colorado--have attempted to refine both the questions involved and the techniques used to identify cultural modification of bone vs. modification through natural agencies.

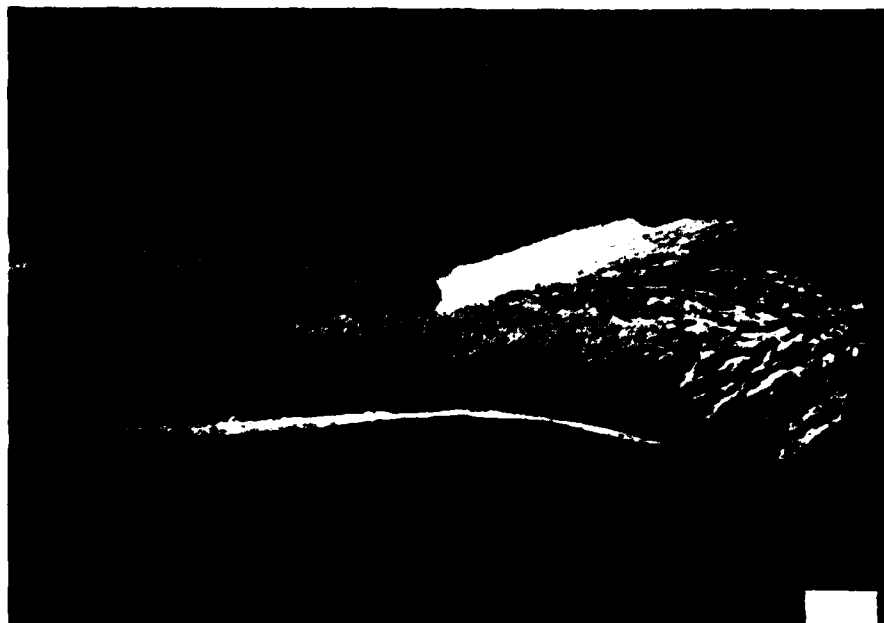
At this time, identification of cultural modification depends upon the feedback obtained from both the study of assemblage composition and the morphological characteristics of individual bone elements. That is, it is not enough to identify a spiral fracture on a bone element and call it culturally modified. One must have some idea of the assemblage composition from which it came. Without data concerning the presence/absence patterns from a site, no comparative inferences can be made. Without comparative inferences, functional interpretations are useless.

For these reasons, the following identifications and descriptions are presented to be used only as descriptive data. No functional interpretations for individual elements are attempted.

32ME535 (Figures 6.73 and 6.74)

Bone Element

1. C.f. Artiodactyl (B. bison or Bos taurus), right metacarpal, proximal articular fragment. This element shows at least two separate breaks, possibly cultural in origin. One originates



VENTRAL SURFACE, PROXIMAL TO RIGHT



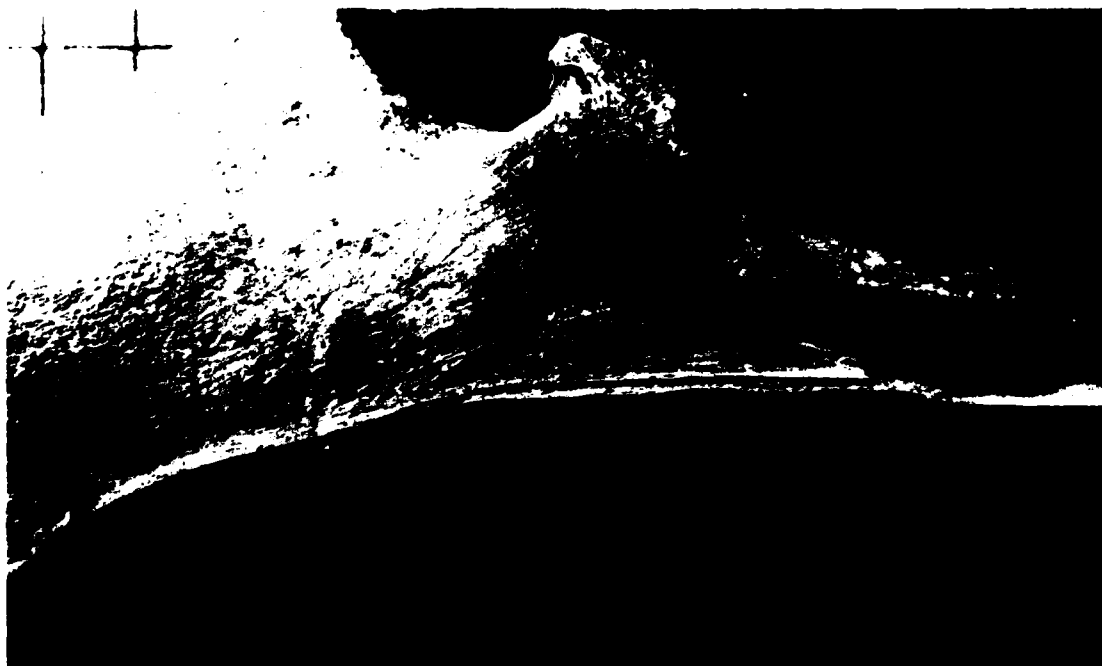
DORSAL SURFACE, PROXIMAL TO RIGHT

LAKE SAKAKAWEA INVENTORY
BONE FROM 32ME535
Figure 6.73

SI



VENTRAL SURFACE, PROXIMAL TO RIGHT



MEDIAL SURFACE, PROXIMAL TO RIGHT

LAKE SAKAKAWEA INVENTORY
BONE FROM 32ME535
Figure 6.74

SL

below the proximal end, the fracture front running up the medial side and terminating below the epiphyseal end within the cancellous tissue. The second appears to originate at the articular end and run down the diaphysis, completing the breakage from the rest of the element. Though such breakage is seen with marrow-processing (Bonnichsen 1973; Zierhut 1967; Binford 1981), no absolute evidence exists, such as an impact area that might indicate cultural breakage. Some evidence exists on the anterior surface for carnivore damage. This element must remain as probably cultural, but not certainly.

2. C.f. Artiodactyl (probably B. bison); right ulna, olecranon/shaft. Breakage patterns on this element are limited. Breakage from the radius is common in cultural assemblages, but damage to the olecranon appears carnivore induced (exhibiting evidence of tooth marks). However, cut marks appear on the ridge of the olecranon, about midway down towards the broken end. The element can be considered to be culturally modified.
3. C.f. Artiodactyl (probably B. bison); left ulna fragment, same individual (?). Breakage on the medial surface of the (missing) olecranon appears to be the result of a snap fracture, so is possibly cultural. Also, the fracture pattern breaking the ulna from the radius also appears to be culturally induced. This is suggested by both the lack of carnivore evidence near the fractures and the morphology of the fracture. It appears to have been induced to run the length of the radio-cubitus contact, rather than haphazardly induced. The fracture fronts are continually induced from the proximal end. Cultural modification is suggested.
4. C.f. Artiodactyl, Bovid or Cervid. Initial breakage appears to have been induced near the proximal end of this element, with a fracture front running mainly up the right lateral edge. Later breakage occurs along both edges that seems to have completely separated the diaphysis fragments. The irregular fracture at

the distal end may be evidence of a twist-and-snap action that broke the element free, completely exposing the marrow cavity. The fractures evident on the left proximal (dorsal) surface may be evidence for the bone having been "bashed" against a rock or another bone. This activity, meant to further an initial break (Binford 1981), seems a likely assumption for such localized flaking existing on a "nonworking" edge.

5. C.f. Artiodactyl, Bovid or Cervid. This element also appears to be the remains of possible marrow-processing activity. The remains of a negative bulb of percussion, with accompanying negative flake scars can be seen just below the distal end (ventral surface). Fractures radiating from this impact have been removed by subsequent breakage.
6. Bison sp.; M₂ lower. No cultural interpretation possible.

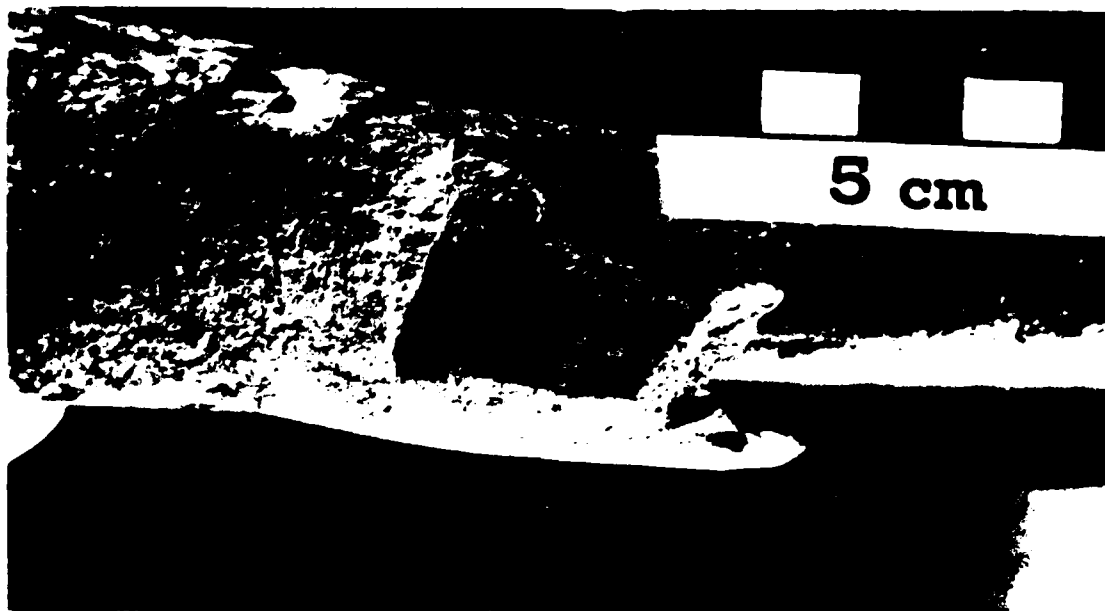
32ME537 (Figure 6.75)

Shovel Test #2:

- 1-2. C.F. Artiodactyl, prob. B. bison; left metacarpal, proximal articular end; both same element. Element exhibits apparent green bone fracture that has removed the proximal anterior half of the articular end. Much of the fracture pattern has been masked by weathering since deposition. Fracture scars on the proximal (dorsal) end may indicate a point of impact, but the evidence is not well preserved. No definite argument can be made for cultural modification from this element alone.
- 3+. C.F. Artiodactyl, prob. B. bison; assorted caudal vertebrae. Assorted caudal vertebrae; no cultural interpretation possible except context.



ANTERIOR TO TOP, PROXIMAL TO RIGHT



POSTERIOR TO TOP, PROXIMAL TO RIGHT

LAKE SAKAKAWEA INVENTORY
BONE FROM 32ME537
Figure 6.75

SI

Shovel Test #3:

All elements unidentifiable fragments; no cultural interpretation possible. Presence of KRF flake introduces possibility of bone fragmentation by cultural means (marrow processing ?), due to extreme fragmentation of bone. However, this hypothesis is testable only with a much larger assemblage present, preferably a complete taphonomic unit.

Shovel Test #4:

All element unidentifiable fragments; no cultural interpretation possible.

Shovel Test #6a:

1. Indeterminate; partial sternum (?).
- 2+ Neural spinal fragments; indeterminate; no cultural interpretation possible.

Shovel Test #6b:

1. B. bison, proximal radius (right), articular end. This element does not exhibit classic spiral fracture patterns. Negative bulbs of percussion with accompanying flake scars do exist on both anterior (2) and posterior (1) surfaces, just distal from the articular end. However, the bone matrix is weathered enough to make identification of any carnivore marks difficult, though they appear present just above the crushed area closest to the anterior articular surface.

Flake scars exist on the medial edge of the element as hinge fractures, not necessarily diagnostic of human exploitation. Cultural modification of this element is suggested from the impact fractures not exhibiting carnivore marks, combined with

the medial surface fracture patterns. Possible carnivore activity is suggested subsequent to initial breakage, due to erratic fractures superimposed over radial and spiral fracture patterns.

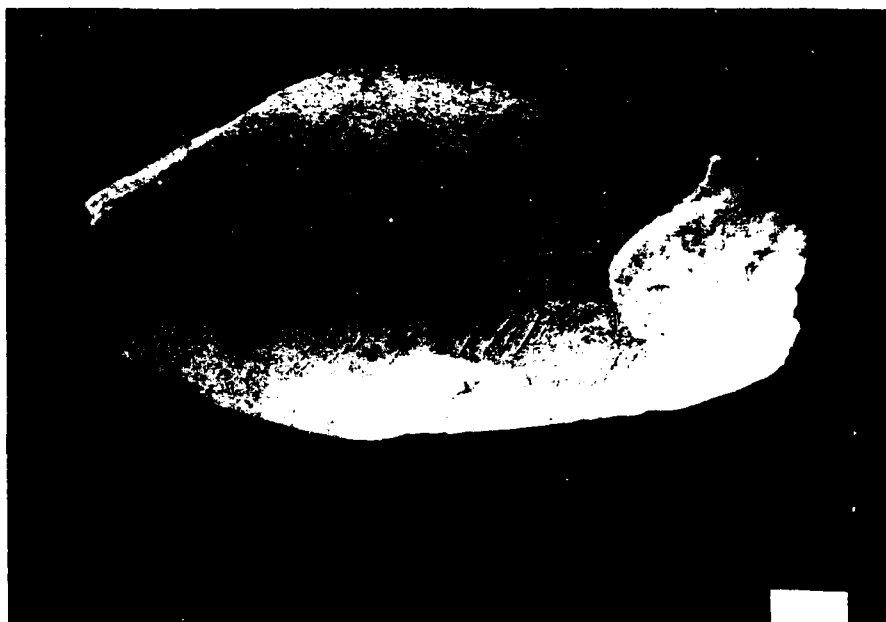
2. Indeterminate, fragmentary; fetal scapula, inominate (?). No cultural interpretation possible.
3. Indeterminate, fragmentary. Element exhibits fracture patterns at proximal end that may indicate cultural activity (bone processing), but weathering has removed any supporting evidence of undoubted cultural modification.
4. Indeterminate, fragmentary. No cultural interpretation possible.
5. Indeterminate, rib shaft fragment.
6. Indeterminate, fragmentary.

Loose:

Three B. bison teeth; age determination possible, but no cultural interpretation possible.

32ME543 (Figure 6.76)

1. C.f. Artiodactyl, Bovid or Cervid; diaphysis fragment. This element appears to have been broken culturally, as evidenced by running spiral fractures converging from possible impact/rebound fractures, expected if the element were broken on an anvil. Negative impact scars exist at three different locations on the element. This may indicate multiple episodes of impact. In addition, cut marks are evident along the entire dorsal surface of the element. This element, therefore, exhibits evidence of both butchering and processing activities. No carnivore actions are evident.



DORSAL SURFACE, PROXIMAL TO RIGHT

LAKE SAKAKAWEA INVENTORY
BONE FROM 32ME543
Figure 6.76

SI

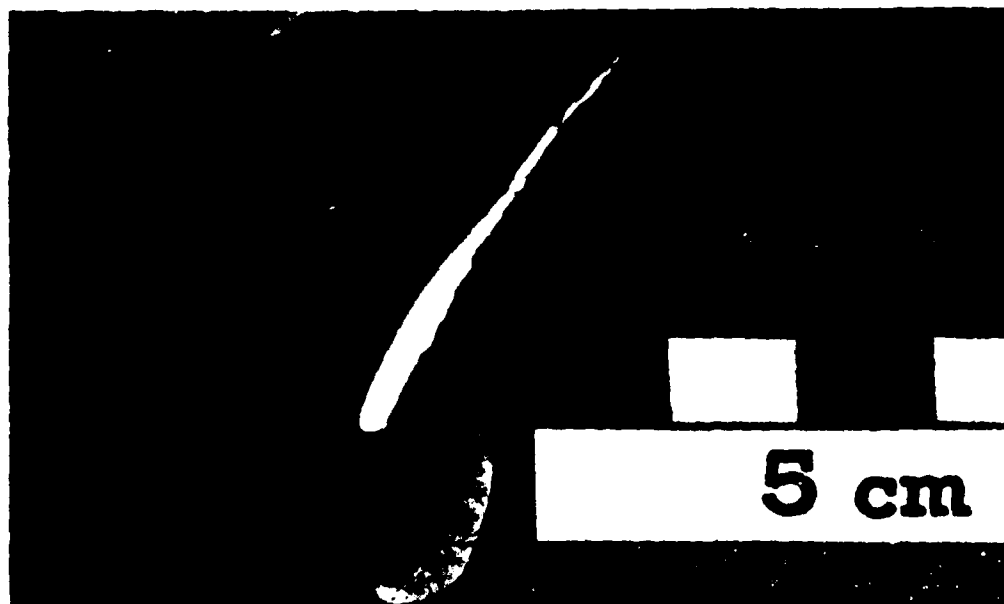
2. C.F. Artiodactyl, probably Bovid; cannon bone diaphysis fragment, metapodial (?). This element shows evidence of spiral fracturing, but no direct evidence of butchering (cut marks, etc.). Again, fragments such as this are found associated with marrow-processing locales; however, surface weathering prohibits identification of carnivore actions.

Fracture appears to have been initiated near the distal end, with fracture fronts moving away, towards both sides of the element. The left fracture front either intersected with the existing fracture at the left edge or this fracture subsequently intersected the former. Breakage at the proximal end may be either culturally or naturally induced.

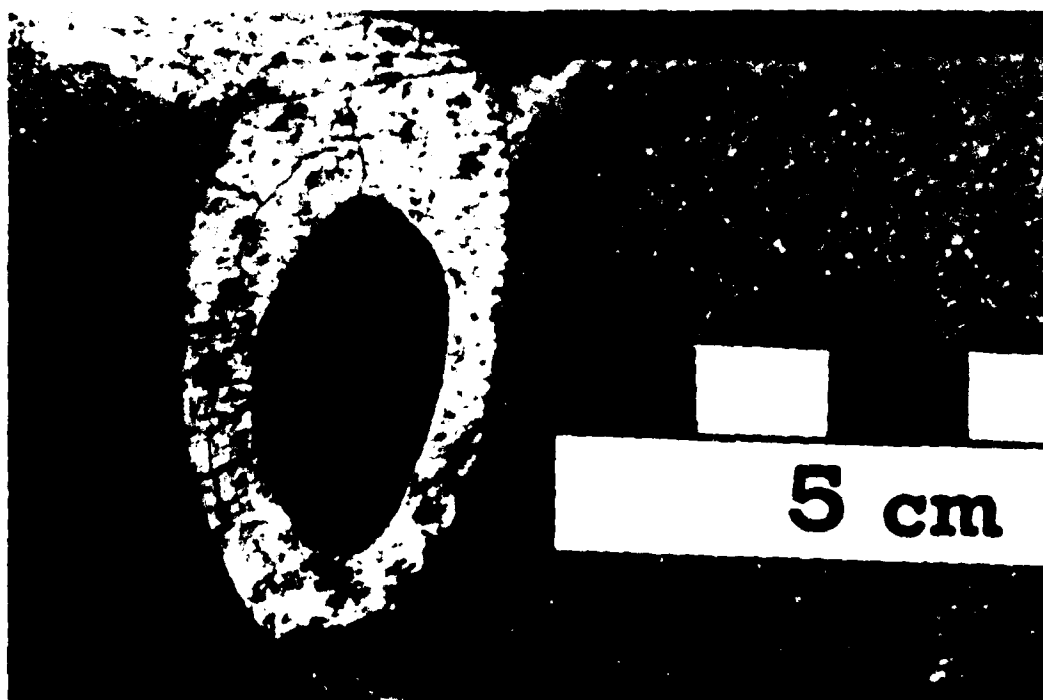
3. Bovid indeterminate, B. bison or Bos taurus; premolar. No cultural interpretation besides contest.
4. Burned (scorched) bone fragment, unidentifiable. This small element appears to have been at least burned, if not broken initially and cooked for possible bone grease or marrow-processing. No carnivore activity seen and no further interpretation possible besides context.

32ML256 (Figures 6.77, 6.78, and 6.79)

1. C.F. Artiodactyl, Bovid indeterminate; juvenile metacarpal (fresh epiphysis). Unquestionable evidence exists on this element for cultural modification as it exhibits sawing with historic (iron) tools. It has been sawed completely into two pieces just above the distal articular end.
2. Sus scrofa (domestic pig); DP4-M₁; with broken mandible fragments. No cultural modification appears present on this element. However, since it was collected from a known trash dump area, it would appear to have been placed there within a cultural context, if not broken in butchering.



BUTCHERED END OF SCAPULA



BUTCHERED END OF METACARPOL

LAKE SAKAKAWEA INVENTORY
BONE FROM 32ML256
Figure 6.77

SL



VENTRAL SURFACE, PROXIMAL TO RIGHT



DORSAL SURFACE, PROXIMAL TO RIGHT

LAKE SAKAKAWEA INVENTORY
BONE FROM 32ML256
Figure 6.78

SI



SUSCROFA (DOMESTIC PIG)



SUSCROFA (DOMESTIC PIG)

LAKE SAKAKAWEA INVENTORY
BONE FROM 32ML256
Figure 6.79

SL

3. C.F. Artiodactyl (bovid indeterminate); inornate fragment. Unquestionable evidence exists on this element for cultural modification as it exhibits evidence of chopping with historic (iron) tools. This element appears to have been extensively damaged by carnivores, but its proximity and relationship to Element #4 (scapula) indicates it probably belonged to the same animal, shown to be butchered by the evidence on the scapula.
4. C.F. Artiodactyl (bovid indeterminate); scapula fragment; same individual as #3 (?). Unquestionable evidence exists on this element for cultural modification as it exhibits an instance of chopping with historic (iron) tools. It has had the distal portion above its posterior angle removed by either sawing or chopping. It is difficult to determine which, due to the limited depth of the cut.
5. C.F. Artiodactyl (bovid indeterminate); distal humerus, fragmentary. Unquestionable evidence exists on this element for cultural modification as it exhibits instances of cutting and chopping with historic (iron) tools. It exhibits cut and chop marks, apparently by metal tools, at numerous areas on the diaphysis. Metal tools are suggested because of both the depth and narrowness of each of these. The element appears also to have been broken in mid-diaphysis. A negative impact fracture (percussion) exists on the medial posterior surface. This may have been the initial fracture, used to gain entry to the marrow cavity. Evidence in the form of flake scars at the surface of the opposing side indicate an anvil may have been used to facilitate breakage. This portion of the humerus (just proximal of the distal articular end) is an extremely thick-walled bone, except where the initial impact was made. It also appears that the last portions of the break was cut away beneath the proximal anterior cancellous area, opposite the initial fracture. Carnivore activity has subsequently altered the bone surface, but it appears the fracture patterning is cultural and not entirely carnivore-induced.

6. C.F. Artiodactyl (Bovid or Cervid); long bone proximal diaphysis fragment. This element also appears culturally modified, as evidenced by an impact scar at the left lateral (ventral) edge. The fracture from this event appears to have radiated (or spiraled) around the diaphysis (mostly evident distally from the impact area). Rebound fracture may have occurred also, setting off other, independent fracture fronts from the opposite sides of the diaphysis--seen now as intersecting fracture fronts. However, there is no evidence of an additional impact area other than fractures radiating from a point opposite the impact fracture discussed. No carnivore activity is evident. This element is considered as a nearly "textbook" example of cultural breakage of bone.
7. C.F. Artiodactyl (Bovid or Cervid); rib fragment. No cultural modification appears present on this element. However, since it was collected from a known trash dump area, it would appear to have been placed there within a cultural context, if not broken in butchering.

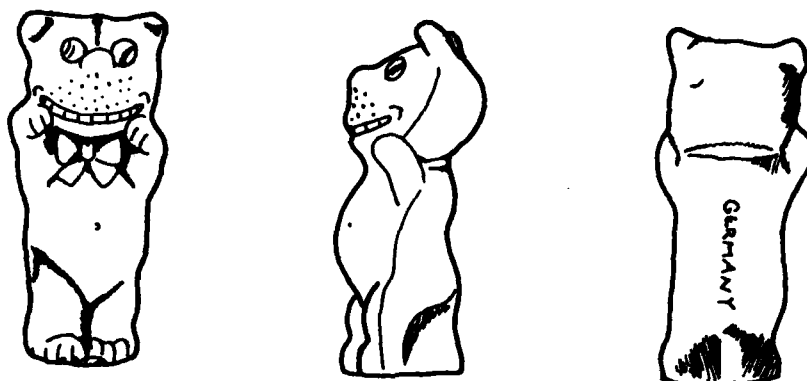
6.2.4 Historic Artifacts

The historic artifactual materials observed and collected during the course of the Lake Sakakawea archeological survey project were within the range of the expected cultural remains of early twentieth century settlement (Figures 6.80 and 6.81) in the area of the Middle Missouri River. All of the historic artifacts can be compared to numerous historic agricultural occupations which occurred between 1910 and 1930. The specific artifacts from 32ML256 indicated domestic occupation, but the rural setting of the resource would suggest a farming or ranching relationship. The paucity of historic artifactual materials from this site does not permit any analyses or interpretations of specific cultural adaptations, nor does it lend itself to definitive correlations to other, more intact historical manifestations in the region.



LAKE SAKAKAWEA INVENTORY
HISTORIC CERAMICS
Figure 6.80

SL



White Porcelain Doll
Turn of the Century
SITE 32ML256

ARTIFACT DRAWN TO SCALE

LAKE SAKAKAWEA INVENTORY
PORCELAIN DOLL
Figure 6.81

RI

6.3 EVALUATIONS AND SUMMARY

A total of 56 resources were located during the inventory survey. These include the following site types:

	#	%
Stone Circle Features	37	68
Cultural Material Scatters	14	25
Bison Bone Scatters	1	2
Eagle Trapping Pits	1	2
Linear Mounds	1	2
Historic Structures	1	2
Linear Rock Alignments	1	2

The stone circle sites vary in the number of features present ranging from single circles, single circles with associated features, multiple circles, and multiple circles with associated features. Single stone circle sites number 18 and include five with associated stone cairn features, one with an associated stone cairn and a historic component, and four with associated cultural material scatters. The greatest number of associated stone cairn features is two. There are 19 sites which have multiple stone circle features and these include nine with associated stone cairn features, one with an associated cultural material scatter, and one with an extensive arrangement of stone cairn features and linear stone alignments. The lowest number of circles is 2; the highest, 31. The median number of circles is four. There are nine multiple circles sites with associated stone cairn features. The lowest number of associated cairns is one; the highest, six. The median number of cairns is one.

The number of complete circles recorded is 110; partial, 11. The largest diameter of a stone circle is 9 m x 8 m, the smallest 2.75 m x 4.15 m. The mean average diameter is 5.6 m. Where noted, the majority of the circles are double-ringed. Stones making up the circle vary considerably, but most range from 25-65 cm. Most of the stones are igneous, glacial till cobbles. A few (especially on the Nishu Public Use Area) are of cinder or Tongue River silicified sandstone. Very few of the

stone circle sites have any cultural material in association. When present, these remains consist primarily of flakes and debitage shatter of Knife River flint. No diagnostic arrow points or ceramics were located so the cultural affiliation and function of these stone circles remains unknown.

The stone circle sites are located on either the tops or the edges of the ridge and bluff system which makes up the Missouri River "breaks" area. Almost all of the site locations command excellent views of the surrounding countryside and, due to the nature of the topography, all the sites are located near to a drainage (usually intermittent system). The reason(s) for the selection of these site locations still, however, remains unclear.

Stone circle sites are perhaps the most intriguing of the cultural manifestations found in the Plains regions of the United States. Although considerable effort has been directed toward understanding the functions of these types of archeological remains, prehistorians may be no closer to solving the mystery than they were a decade ago. Zier and others (1980:171) have discussed the variations in morphology in stone circle sites in their Copper Mountain investigations in Fremont County, Wyoming.

Stone Circles, more commonly termed "tipi rings," are typically a series of boulders or smaller stones arranged in circular to oval shapes. Other shapes occur, however, including rectangles and "D" shapes and many variations in between (Mulloy 1958). Despite the variation in shape, these features will be called "stone circles" in this report. The size and construction tend to vary greatly, but generally they occur as (1) a definite single course of stones, (2) several well-defined concentric courses of stone, (3) circular walls made of multiple coursed stones, (4) a combination of horizontal logs and stones and/or (5) stone configurations of unusual size with lineal lines of rocks radiating out from the center (Malouf 1961:381). The diameter of the circular type configurations can range anywhere from 0.5 meters (Malouf 1961:385) to 46 meters (Crawford 1931:35).

The concept of stone circles as foundations for tipis has been presented in archeological reports for many years (Lewis 1890, Kehoe 1960, Malouf 1966, Davis 1975). Kehoe (1960) has suggested the stones were used

to secure the edges of a skin tipi cover. Other investigators have argued against that function and have offered alternatives including hunting blinds, eagle traps (Conner and Feyhl 1968:4), sweat lodges, sacerdotal houses (Lewis 1889:164-65), gaming circles (Kehoe 1960:381), places for medicine men to stage conjuring tricks (Folsom 1971:89), mountain sheep traps (Edgar 1966:14), stones to anchor stretched hides (Moomaw 1960:8), stone fences or walls (Caldwell and Carlson 1954:441), medicine wheels, effigies, war lodges, vision quest structures, dance circles (Hoffman 1953:1), corrals (Malouf 1961:10), sheltered signal fire sites (Wedel 1970:266), little girls' "play houses" (Campbell 1915:692-293), burials (Lewis 1890:272), menstrual lodges, and protective stone circles rendering tipis invisible to the eyes of an enemy (Malouf 1961:387).

Wormington and Forbis (1965:143-144) have estimated that over 600,000 stone circles occur in Alberta alone and that in the Plains area of North America, stone circles probably number over a million. Zier (1980) has stated that it would seem logical that a large percentage of these stone groups must have fulfilled some sort of domestic role, but that all stone circles cannot be represented as habitational units.

The approaches to stone circle studies have been confused by the tendency of researchers to class together a diverse group of cultural remains that share basic characteristics, and then assume that they serve identical functions (Kehoe 1960:423). Other reasons for the present state of confusion include: (1) the failure of many researchers to conduct detailed field studies, (2) the absence of reliable ethnographic sources, and (3) the problematic nature of the resource.

Zier (1980) has presented a basic approach to stone circle studies which should form the foundation for future research. Of primary importance is the development of testable hypotheses. Intrasite morphological variations of stone circles, relationships between resource utilization and settlement strategy, excavation and testing programs, and isolated stone circle features are some of the questions which need to be addressed in hypotheses design.

The linear feature of stone cairns, circles, and alignments at 32ML257 is not unknown in the High Plains. Some were apparently game drives (Frison 1978). Other functions may have included trail, boundary, or resource markers (Frison 1981:133-148). The exact function of the feature at 32ML257 is unknown.

Cultural material scatter sites number 15. With one exception, these sites are located on the tops of the ridges or bluffs in the Missouri River "breaks" area. Almost all of them are buried and are visible only in roadbeds, plowed tree breaks, and gopher-hole backdirt. The one exception is a scatter located at the base of a slope and adjacent to a drainage. Depths of the buried material ranges from 10-30 cm below the present ground surface. Most of the scatters consist simply of Knife River flint chipped stone concentrations (flakes and debitage shatter). 32ME537 and 32ME547 both have Knife River flint chipped stone and bison bone concentrations. 32ME538 and 32ME543 have concentrations of Knife River flint chipped stone, simple-stamped pottery (rims and body sherds) and bison bone. Where possible to determine, the arrow and dart points all side-notched. All are of Knife River flint. The only buried feature found in close proximity to any cultural materials scatter is a badly disturbed hearth located in a roadbed (32ME537).

The exact function of these buried cultural material scatters remains unknown. Ahler et al. (1981) recently excavated eight sites in the Missouri breaks physiographic zone on the Cross Ranch in Oliver, North Dakota. Their research revealed site functions to include "a bison kill/processing area, two habitation sites, three limited activity locations, a cairn, and an effigy site of uncertain function (ibid:i). The occupation of these sites was found to range from the Late Archaic through the Plains Village periods, with the heaviest use occurring during the Late Woodland period (ca. A.D. 500-1000) (Ibid).

The information collected during the inventory survey is too limited to address site function to the detail researched by Ahler et al. (1981) and presented above. Although similar functions can be postulated for these sites, only testing of the buried cultural remains can provide

acceptable answers. Such programs of testing are recommended below. Ahler et al. (1981) explored several factors relating to NRHP significance. They found large (~ 2000 m²) scatters of material, combinations of pottery and bone, and sites in draws and at slope bases to all produce positive results. Similar questions could certainly be explored in the eastern Lake Sakakawea area.

In addition to site function, temporal and cultural affiliations of the sites remain unknown. As mentioned above, the arrowpoints and dart points (where possible to determine) are all side-notched. Some of the arrow points are very similar to points determined to be associated with Plains Village Culture (Lehmer 1971:73). Ahler et al. (1981) also recovered numerous side-notched arrow and dart points. With access to controlled excavation procedures, the arrowpoints were found to date to Late Woodland and Plains Village Cultures and the dartpoints were found to date to Late Archaic/Middle Woodland periods. Concerning the typing of later points, Ahler et al. (1981:i) had the following comment, "Arrowpoints are associated with Late Woodland sites in the area, but these artifacts are visually indistinguishable from arrowpoints occurring in later Plains Village sites in the vicinity."

In light of Ahler et al.'s (1981) research results and without detailed excavation information, an exact cultural affiliation of the arrow points recovered during the inventory survey has not been attempted. Instead, the position has been taken that the recovered side-notched projectile points are probably assignable to the periods of cultural adaptation following the Archaic. Along the middle section of the Missouri River, this would include the major cultural periods termed the Woodland (A.D. 0-900) and the Plains Village (A.D. 1200-1845) (Wedel 1961; Willey 1966; Lehmer 1971; Lee, editor 1980).

The function of the bison bone scatter may relate to either killing and/or butchering. This could not be determined in the field, and a more complete investigation has been recommended. The cultural affiliation could not be determined.

Eagle trapping pits are known from historic records (Allen 1981), and most probably date back to Plains Village culture but, without diagnostic artifacts, no cultural affiliation could be assigned to this particular resource.

Two mounds were located on Nishu Peninsula. One of the mounds is oriented E-W, the other NE-SW. A two-rut road truncates the NE-SW mound on the SW side. Evidences of earlier roads, or perhaps horse or travois tracks (now vegetated) also crisscross the area making exact size measurements of the mounds difficult. Both of the mounds rise only about 25-30 cm above the surrounding prairie. The mound oriented E-W appears to be approximately 135 m long and 20-30 m wide. The mound truncated on the SW is approximately 65 m long and 20-30 m wide. Cultural material (Knife River flint chipped stone) was found eroding out of the truncated mound. The other mound was not tested. Other features which may represent additional mounds are faintly visible on the 1974 aerial photographs (1' = 2000'). These were not discovered until after the inventory was completed so these features have not been field checked.

Chomko and Wood (1973:1) in their discussion of linear mounds on the northeastern Plains suggest the following:

...suggests that (1) linear mounds are common through much of the subarea, and have a long history, (2) different mounds within a single mound group were neither necessarily erected by a single cultural group, nor necessarily over a short period of time, (3) most linear mounds are of Woodland origin, and (4) some of them may be products of late prehistoric Assiniboiné Indians. The groups that built the mounds apparently had a socio-ceremonial organization and a subsistence economy that allowed part of the group to engage in such specialized activities, for at least part of the year, that did not add to the subsistence base of the group.

Close to the study area, linear mounds have been noted to occur near the mouth of the Knife River. These mounds are recorded to be not more than 12" in height; they range from 85-600 feet in length and 30-40 feet in width (Lehmer 1971:62). The cultural affiliation of linear mounds is still being explored with some evidence suggesting a Woodland affiliation

(Wood and Johnson 1973) and other evidence suggesting a Hidatsa (Bowers 1948:131 in Lehmer 1971:62).

The resources located during this inventory represent a wide range of sites. They are similar, however, to sites recorded previously in the area (see Section 4 above). The data collected can be useful in contributing to local and regional prehistories and histories. Strong recommendations are being made to test the buried cultural material scatters located on the bluffs (particularly in light of the impact they are receiving), as these sites offer excellent opportunities to add to the data base generated by Ahler et al. (1981). In addition, the mounds on the Nishu Public Use Area need further work (mapping and testing) as these features can certainly add more information about function and cultural affiliation.

SECTION 7.0 RECOMMENDATIONS

7.1 IDENTIFICATION OF ADVERSE IMPACTS

The resources located during the inventory of eastern portions of Lake Sakakawea are subject to several different kinds of adverse impact. The first of these involves damage from the water of the lake. Two of the sites were located below the current waterline. Inundation and shoreline wave action has probably destroyed much of the original spatial context. Wave action is consistently eroding the bluffs where many of the sites are located, causing the resources to be dispersed on the shoreline below.

Recreational use of the land areas is also rapidly contributing to the destruction of the sites. Several of the survey areas are covered by roads (paved and graveled), picnic and camping areas, playgrounds, boat ramps, tree breaks, concessions, residences, etc. Recreation traffic in certain areas is heavy (Fort Stevenson, Lake Sakakawea, Beulah Bay), and sites are therefore exposed to casual collection and disturbance (i.e., removal of stones in stone circle features to form firepits).

A third source of impact to the resource comes from agricultural activities. This includes plowing and planting of crops, harvesting of native grasses, and grazing of cattle. Some of these activities involve only disturbance of surface or near surface remains. Others, such as plowing and planting of crops, disturb the subsurface context of the resources.

7.2 SIGNIFICANT SITES

The significance and management recommendations for the individual sites are presented in Table 7.1. The following comments are a summary of this table. As observed at the time of the inventory, the linear earthen mounds (32ML258) were significant in terms of the criteria (especially 36CFR60.6(d)) for nomination to the National Register of Historic Places (NRHP) and all impact should be avoided. Six of the sites (32ML245,

Table 7.1
Significance and Management Recommendations

The Nishu Public Use Area		
Number	Site Type	Significance and Management Recommendations
32ML244	Stone Circle and Other Rock Features	Further evaluation and impact analysis recommended
32ML245	Pit	Potentially significant for nomination to the NRHP; further evaluation and impact analyses recommended
32ML255	Stone Circle	Further evaluation and impact analysis required
32ML256	Cultural Material Scatter	Further evaluation and impact analysis required
32ML257	Stone Circle and Other Rock Features	Potentially significant for nomination to the NRHP; further evaluation and impact analyses recommended
32ML258	Earthworks	Significant for nomination to the NRHP; avoid any impact
National Guard Recreation Area		
Number	Site Type	Significance and Management Recommendations
32ML225	Stone Circles and Other Rock Features	Further evaluation and impact analysis recommended
32ML226	Stone Circle and Other Rock Features	Further evaluation and impact analysis recommended
32ML227	Stone Circles and Other Rock Features	Further evaluation and impact analysis recommended
32ML228	Stone Circles and Other Rock Features	Further evaluation and impact analysis recommended
32ML229	Stone Circle	Further evaluation and impact analysis recommended
32ML230	Stone Circles	Further evaluation and impact analysis recommended
32ML231	Other Rock Features	Further evaluation and impact analysis recommended

Table 7.1 (continued)

National Guard Recreation Area (continued)		
Number	Site Type	Significance and Management Recommendations
32ML232	Stone Circles	Further evaluation and impact analysis recommended
32ML233	Stone Circles and Other Rock Features	Further evaluation and impact analysis recommended
32ML234	Stone Circles and Other Rock Features	Further evaluation and impact analysis recommended
32ML235	Stone Circles and Other Rock Features	Further evaluation and impact analysis recommended
32ML236	Stone Circles	Further evaluation and impact analysis recommended
32ML237	Stone Circle	Further evaluation and impact analysis recommended
32ML238	Stone Circle and Other Rock Features	Further evaluation and impact analysis recommended
32ML239	Stone Circles and Other Rock Features	Further evaluation and impact analysis recommended
32ML240	Stone Circle	Further evaluation and impact analysis recommended
32ML243	Stone Circle	Further evaluation and impact analysis recommended
Garrison Dam Recreation Area		
Number	Site Type	Significance and Management Recommendations
32ML241	Stone Circles and Cultural Material Scatter	Further evaluation and impact analysis recommended
32ML242	Stone Circle and Other Rock Features	Further evaluation and impact analysis recommended
32ML248	Stone Circles	Further evaluation and impact analysis recommended
32ML249	Stone Circles	Further evaluation and impact analysis recommended

Table 7.1 (continued)

Garrison Dam Recreation Area (continued)		
Number	Site Type	Significance and Management Recommendations
32ML250	Stone Circles	Further evaluation and impact analysis recommended
32ML251	Stone Circles and Other Rock Features	Further evaluation and impact analysis recommended
32ML252	Stone Circles	Further evaluation and impact analysis recommended
32ML253	Stone Circle and Other Rock Features	Further evaluation and impact analysis recommended
Fort Stevenson State Park		
Number	Site Type	Significance and Management Recommendations
32ML246	Stone Circle	Further evaluation and impact analysis recommended
32ML247	Stone Circle and Other Rock Features	Further evaluation and impact analysis recommended
32ML254	Stone Circles and Other Rock Features	Further evaluation and impact analysis recommended
Lake Sakakawea State Park		
Number	Site Type	Significance and Management Recommendations
32ME535	Miscellaneous (Bone Scatter)	Further evaluation and impact analysis recommended
32ME536	Cultural Material Scatter	Further evaluation and impact analysis recommended
32ME549	Cultural Material Scatter	Further evaluation and impact analysis required
32ME553	Cultural Material Scatter, Depression, Foundation, and Machinery	Significant for nomination to the NRHP; avoid any impact

Table 7.1 (continued)

Hazen Bay Public Use Area		
Number	Site Type	Significance and Management Recommendations
32ME531	Stone Circle	Further evaluation and impact analysis recommended
32ME538	Cultural Material Scatter	Further evaluation and impact analysis recommended
43ME539	Cultural Material Scatter	Further evaluation and impact analysis recommended
32ME540	Stone Circle	Further evaluation and impact analysis recommended
32ME541	Stone Circle	Further evaluation and impact analysis recommended
32ME542	Cultural Material Scatter	Further evaluation and impact analysis recommended
32ME543	Cultural Material Scatter and Pit	Potentially significant for nomination to the NRHP; further evaluation and impact analyses recommended
32ME550	Other Rock Features	Further evaluation and impact analysis required
32ME551	Stone Circle	Further evaluation and impact analysis required
32ME552	Stone Circle	Further evaluation and impact analysis required
Beulah Bay Public Use Area		
Number	Site Type	Significance and Management Recommendations
32ME537	Cultural Material Scatter and Hearth	Potentially significant for nomination to the NRHP; further evaluation and impact analyses recommended
Beaver Creek Public Use Area		
Number	Site Type	Significance and Management Recommendations
32ME532	Cultural Material Scatter	Further evaluation and impact analysis recommended

Table 7.1 (continued)

Number	Beaver Creek Public Use Area (continued)	
	Site Type	Significance and Management Recommendations
32ME533	Cultural Material Scatter and Other Rock Features	Further evaluation and impact analysis recommended
32ME534	Cultural Material Scatter	Further evaluation and impact analysis recommended
32ME544	Cultural Material Scatter and Other Rock Features	Further evaluation and impact analysis required
32ME545	Stone Circle	Further evaluation and impact analysis required
32ME546	Cultural Material Scatter	Further evaluation and impact analysis required
32ME547	Cultural Material Scatter and Stone Circle	Further evaluation and impact analysis required

32ME537, 32ME538, 32ME539, 32ME543, 32ML257) are potentially significant in terms of the criteria (especially 36CFR60.6d) for nomination to the NRHP. Further evaluation and impact analyses are recommended for these sites. The significance of the remaining sites cannot be determined using the data collected during the inventory. The data lack sufficient detail to address the research value of the sites. Additional evaluation and impact analyses are recommended for these sites also. In all cases above, any future dirtwork by the COE in the area of these resources should be carefully planned, monitored, and evaluated with the aid of an archeologist.

The Nishu Public Use Area is recommended as significant for district status in terms of the criteria (especially 36CFR60.6d) for nomination to the NRHP. Any impacts to the area should be avoided. The reasons for significance are numerous and include: 1) the diverse site types clustered together, 2) the extensive number of features located on certain individual sites, 3) the independent significance and potential significance in terms of criteria for nomination to the NRHP of certain of the sites, 4) the presence of buried cultural materials, 5) the presence of a well protected integrity, 6) the topographic uniqueness of the landform, 7) the loss of surrounding land areas to flooding, 8) and the easily defined boundaries of a district because of the flooding.

The site types and features located on the Nishu Public Use Area include stone circles; stone cairns; linear arrangements of stone features (cairns, circles, alignments); cultural material scatters; linear mounds; an eagle trapping pit; and historic foundations, depressions, corrals, fields, trash scatters, and old roads (possibly also travois tracks). Almost all of these site types and features occur elsewhere within the study, but such a diverse combination of sites does not occur on any other of the inventory areas. The number and extent of features and scatters is great when compared to adjacent land areas. The linear mounds are recommended as significant for nomination to the NRHP; the eagle trapping pit and the stone features at 32ML258 as potentially significant for nomination. Cultural materials were visible along the roadbed that runs the entire length of Nishu Peninsula. The potential for extensive buried

remains in land areas adjacent to the roadbed is assessed as great. The potential buried nature of much of the cultural resources, combined with minimal recreation and agriculture impacts provide a well-preserved integrity. As currently observed, the Nishu Public Use Area is a large peninsula jutting into Lake Sakakawea. Before the damming of the Missouri River, the Nishu Area would have been a prominent ridge flanked by large drainages. Such a topographic situation may have offered unique possibilities for resource exploitation. The narrow ridge crest running E-W across the peninsula certainly has the potential of being a unique topographic feature itself, and shows evidence of human utilization. The loss of surrounding cultural resources as a result of the formation of Lake Sakakawea makes the information contained within the Nishu Public Use Area even more important. The presence of the floodwaters neatly provides boundaries for the district on the sides. The northern boundary would still need definition.

Several research questions could be addressed by the cultural resources located within the Nishu Public Use Area. The relationship of the site type clustering could be explored: Are the sites indicative of cultural adaptation at one particular point in time or are they indicative of cultural adaptation through time? The configuration of sites may provide information about settlement patterns and resource exploitations. Buried activity areas and features may provide additional data about resource utilization, as well as information on tool technologies.

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**APPENDIX 9.0
NORTH DAKOTA CULTURAL
RESOURCES SURVEY SITE FORMS**